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STORAGE ASTRONOMICAL OBSERVATIONS

MADE AT THE

OBSERVATORY OF CAMBRIDGE

BY

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IN THE UNIVERSITY OF CAMBRIDGE,

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VOL. XVIII.

FOR THE YEARS 1849, 1850, AND 1851.



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P R E F A C E.

THIS Volume contains the observations made with the Transit and Mural Circle in 1849, 1850, and 1851, and the Occultations of Fixed Stars by the Moon, the observations of Planets and Comets made with the Northumberland Equatorial in the same interval being reserved for separate publication.

The Meridian Observations were continued with but slight interruptions through the three years, and were almost all taken by Mr Breen and Mr Todd, who observed by turns with both instruments. Occasional observations were taken by myself, and in the autumn of 1849 some observations, both with the Transit and the Mural Circle, were taken by R. C. Carrington, Esq., who has since at the Durham Observatory, and more recently at his own Observatory at Redhill, performed good service in the field of astronomical science. I am also indebted to Mr Carrington for assistance in the calculations. Some of the transits of 1851 were taken by Mr John William Breen, brother of the Senior Assistant, to whom I gave permission to observe for the sake of practice.

The major part of the observations of the three years are directed towards the exact determination of the places of stars. In 1849 I commenced a series of observations of stars to the ninth magnitude inclusive, contained within a zone extending 5° on each side of the Ecliptic, the stars in this portion of the heavens being likely to be useful for comparison in Equatorial observations of the Minor Planets. At first it was intended to include in the series by independent observation all stars to the ninth magnitude contained within the zone, but this scheme being found to be too large for the personal force of the Observatory, the observations were confined to stars found in Weisse's Reduction of Bessel's Zones, and in the British Association Reduction of Lalande's *Histoire Céleste*, from which a working Catalogue of about 8000 stars was formed. This series of observations has already served to correct a considerable number of errors in Catalogues.

The observations of 1849 include some of the Minor Planets and Neptune. In the two following years observations of the Sun, and the Moon and Moon-culminating stars, were added, the former as being fundamental, and the latter to serve for the determination of Longitudes, and because the Moon-culminating stars are many of them contained in the above-mentioned Ecliptic Zone. All the observations of the Minor Planets are compared with calculated places, and if no Ephemeris was available for the purpose, the places were directly computed from Elements. This was done, not with the view of furnishing data for correcting the Theories of those bodies, but to give the means of judging of the value of each observation, and to indicate any that are anomalous, and also in some cases to decide whether the object observed was really the Planet, or a star mistaken for it.

All the observations have been completely reduced with the strictest attention to accuracy, and the calculations have all been carefully examined. The amount of calculation has necessarily been very large, both on account of the great number of the stars that were observed, especially in 1849, and the length of the calculations required for deducing theoretical places of the Minor Planets from the elements of their orbits. To these causes the long delay of the publication of this Volume is to be attributed.

J. CHALLIS.

CAMBRIDGE OBSERVATORY,

Oct. 3, 1857.

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ERRATA.

IN VOLUME XVII.

Pp. 324, 329 and 337. The minutes of N.P.D. of the star of R.A. $5^h.11^m.36^s$ observed Dec. 4, 1848, should be 19 instead of 20.

IN THE PRESENT VOLUME.

- p. xxiv, line 3 from the Table. *For* $+0''.41$ more southward, *read* $0''.41$ more northward.
- p. 5, Feb. 15. The concluded transit and apparent R.A. of \times N.P.D. $44^\circ.27'$ are 1^m too great.
- p. 5, Feb. 15. *For* \times N.P.D. $44^\circ.32'$ *read* \times N.P.D. $44^\circ.26'$.
- p. 7, Feb. 19 and 22. *For* \times N.P.D. $84^\circ.56'$ *read* \times N.P.D. $84^\circ.52'$.
- p. 9, March 17. The correction $+0''.47$ was applied to the observation of Polaris for form of the pivots instead of $-0''.49$. It has not been thought worth while to alter the observations affected by this mistake.
- p. 14, June 8. *For* Bessel xiv. 439 *read* Bessel xiv. 441.
- p. 18, July 12, 16 and 21. *For* H. C. 32493 *read* H. C. 32486.
- p. 25—39, in the space below the columns. *For* of *read* from, and *for* from *read* to, as in the other parts of the Volume.
- p. 44, last column. *For* \times N.P.D. $84^\circ.56'$ *read* \times N.P.D. $84^\circ.52'$. This star should precede B.A.C. 2118. Also in the same column Argelander 7143 should precede Bessel vi. 990.
- p. 45, third column. H. C. 14722 should follow Castor.
- p. 45, last column, 82 Geminorum. *For* -0.94 *read* -1.15 , and *for* 31.88 *read* 31.67. A mistake was made in calculating the correction.
- p. 47, last column. Bessel xiv. 439 is a mistake for Bessel xiv. 441, the correction should be -2.02 instead of -2.09 , and the seconds of R.A. 5.29 instead of 5.22. The date, correction, and R.A. should range under Bessel xiv. 441 above.
- p. 50, second column. *For* H. C. 32493 *read* H. C. 32486.
- p. 51, last column. *For* B.A.C. 6836 *read* B.A.C. 6886.
- p. 62, Feb. 10. *For* \circ Persei *read* 40 Persei, this being the name in all other instances.
- p. 62, Jan. 23. *For* Bessel iv. 1312 *read* Rumker 1382, the latter name being in accordance with the rule of nomenclature in p. i.
- p. 67, March 24, and p. 68, April 26. The star B.A.C. 3856 is 55 Ursæ Majoris, and should have been so called.
- p. 69, June 5. Add R to Zenith Point. The R is omitted also on Sept. 4 and 24, Oct. 15 and 29, Nov. 7, 19 and 20, and Dec. 31.
- p. 69, June 13. Circle observations were suspended from June 13 to July 10 in the absence of Mr Todd on vacation. This remark is omitted in the Notes.
- p. 72, Aug. 4. The microscope readings were $3'$ too great. The concluded Circle reading should be $70^\circ.0'.1''.35$; refraction, $170''.52$; and Apparent N.P.D. $109^\circ.7'.28''.59$.
- p. 73, column of concluded Circle readings. Dele the bar after the Zenith Points of Sept. 4.
- p. 82, Dec. 29. Dele the observation of Astræa, the object taken not being the Planet.
- p. 101, Nos. 222 and 223. Argelander 9164 and 9165 are the same star.
- p. 164, Jan. 23. The seconds of Apparent R.A. of λ Tauri should be 23.01, of α^1 Tauri 50.64, and of the Moon 46.01, being in each case $0''.05$ too small.
- pp. 169, 170 and 171, space below the columns. The Illumination was East, and the Intervals should consequently be $-40''.344$, $-26''.892$, $-13''.573$, $-0''.060$, $+13''.618$, $+26''.913$, $+40''.337$.
- p. 213, Nos. 116 and 118, seconds of Mean R.A. *For* 22.68 *read* 22.73, and *for* 50.23 *read* 50.28.
- p. 217, No. 396. In the Note, *for* x. *read* xi.
- p. 226, Jan. 30. Dele M after \odot N.L. and \odot S.L., as being unnecessary.
- p. 228, line 11. *For* $D = -0''.026$ *read* $D = -0''.247$.
- p. 280, in the running Title. Dele the word APPARENT.
- p. 288, line 19. *For* $-0''.026$ *read* $-0''.247$, and *for* $+0''.105$ *read* $-0''.116$.
- p. 310, Feb. 18. The concluded transit and apparent R.A. of \odot 2 L are 1^m too small.
- p. 316, column of corrections of level error. The correction $+2''.0$ used on April 18, 19 and 21 is omitted.
- p. 325, column of corrections of azimuth error. *For* $+0.4$ *read* $+0.4$.
- p. 328, Aug. 21. Clock slow by β Aquarii, dele the brackets.
- p. 329, Sept. 3. Dele the observation of Hebe, the object observed not being the Planet.
- p. 337, Nov. 18. Seconds of concluded transit of Iris, *for* 53.72 *read* 52.74; seconds of meridian transit, *for* 53.77 *read* 52.79; and seconds of Apparent R.A. *for* 21.99 *read* 21.01.
- p. 380, Sept. 13. Seconds of Apparent N.P.D. of Iris, *for* 49.98 *read* 46.98.
- p. 384, Nov. 1. An observation of Hygeia should be inserted after Neptune. See the Addenda to the Introduction, p. lxxvii.
- p. 410. The Geocentric N.P.D. and Parallax of Hebe on June 19, and the comparison of the R.A. and N.P.D. with the Tabular values, are omitted. See the Addenda to the Introduction, p. lxxvii.

CAMBRIDGE OBSERVATIONS.

INTRODUCTION.

THE *Instruments* and *Methods of observing* employed in taking the observations recorded in this Volume, are described in the Introductions to the Volumes of observations of 1838 and previous years. The following pages contain explanations of the tabulated observations and such occasional notices as could not be given at length in the body of the work, together with an account of the constants and formulæ used in the Calculations. Tables employed in the reduction of the observations are added to the Introduction.

OBSERVATIONS OF 1849.

1. *Apparent Right Ascensions observed with the Transit.* Pages 1—39.

The first division of the tabular portion of the work is allotted to the Transit Observations and the Calculation of Apparent Right Ascensions.

The *first column* contains the day of the month, supposed always to commence with the Sun's meridian passage.

The *second column* contains the names of the objects observed. With respect to nomenclature the following rules have been adhered to as closely as possible. Stars contained in the Nautical Almanac have the same names here given them as in that work. Stars in the Catalogue of the British Association, and not in the Nautical Almanac, are named in preference, by the letters in that Catalogue; next, by Flamsteed's numbers; and lastly, by the numbers of the Catalogue. The hour and number of Piazzi's Catalogue, the number of Groombridge's Catalogue, the number of Rumker's Catalogue of 12000 stars, and the number of Oeltzen's reduction of Argelander's zone observations from 45° to 80° of North Declination, have been used with the names of the respective observers attached, when the star is not in the Catalogue of the British Association. Double stars in Struve's *Catalogus Novus*, if not found in any of the above-mentioned works, and if they have been selected for micrometrical measurement with the Northumberland Telescope, are designated by the letter Σ prefixed to the number of that Catalogue. A star not coming under any of the above classes, if found in Weisse's reduced Catalogue of stars in Bessel's Zones (1846), is designated by the hour and number of that Catalogue preceded by the observer's name. If, not being in Weisse's Catalogue, the star is in the British Association reduced Catalogue of stars contained in the *Histoire Céleste* of Lalande, it is named by the number of this Catalogue with the letters H. C. prefixed. All other stars are designated by their approximate North Polar Distances.

In observations of double and multiple stars, the rule generally followed both in the Transit and Circle observations is, to select the brightest when decidedly brighter than the others, and of two or more nearly equally bright, to take the preceding. Sometimes the observer notes the one selected as *preceding, following, north, south, north preceding, north following, south preceding, south following*, by the letters *p, f, n, s, np, nf, sp, sf*, in their usual signification, the preceding star being that of less R.A., and the north star that of less N.P.D. This is done when the application of the foregoing rule is doubtful, or when the stars are very close, to shew that they are seen separate, or to facilitate the identi-

fying of the stars. The above letters are placed after the names of the stars in the second column, only in case the observer has thus noted at the time of observation the star selected.

The *seven succeeding columns* contain the seconds, by the Transit clock, of the times of passage over the seven wires. It has been thought unnecessary to give the hours and minutes, as they may be readily inferred, by means of the Table of intervals below, from the concluded time of transit over the mean of the seven wires, given in the next column.

When, as not unfrequently happens from atmospheric and accidental causes, the times of transit across all the wires cannot be observed, a correction is necessary for reducing the mean of the observed times to the time of transit over the mean of all the wires. This reduction is effected by adding (with the proper sign) to the mean of the observed times, the sum of the distances in time of the omitted wires from the mean of all, divided by the number of the observed times. (See Introduction to the Observations of 1836, p. xiii.)

The following table of intervals of the seven wires from the mean of all, which was used throughout the year, was computed from nine complete transits of δ Ursæ Minoris and twenty complete transits of Polaris taken from 1847 January 14 to 1848 April 4. It was ascertained by six complete transits of Polaris in 1849 that the intervals during that year remained very nearly the same as in 1848. The wires are distinguished by the letters *A, B, C, D, E, F, G*; and stars above the Pole pass them in this order when the Illumination end of the axis is East.

Wire.	Interval for an Equatorial Star.	Interval for Polaris. Declination = $88^{\circ}.29' + n''$.	Interval for δ Ursæ Minoris. Declination = $86^{\circ}.35' + n''$.
A	- 40,362	- 25 . 28,11 - 0,281 <i>n</i>	- 11 . 17,54 - 0,055 <i>n</i>
B	- 26,890	- 16 . 56,90 - 0,187 <i>n</i>	- 7 . 31,29 - 0,037 <i>n</i>
C	- 13,537	- 8 . 31,58 - 0,094 <i>n</i>	- 3 . 47,14 - 0,018 <i>n</i>
D	- 0,065	- 2,47	- 1,10
E	+ 13,616	+ 8 . 34,56 + 0,094 <i>n</i>	+ 3 . 48,48 + 0,019 <i>n</i>
F	+ 26,877	+ 16 . 56,40 + 0,187 <i>n</i>	+ 7 . 31,07 + 0,037 <i>n</i>
G	+ 40,362	+ 25 . 28,09 + 0,281 <i>n</i>	+ 11 . 17,52 + 0,055 <i>n</i>

The intervals for all other stars were obtained by multiplying the intervals for an equatorial star by the cosecant of N.P.D., and those for the planets by multiplying by the additional factor $1 + \frac{I}{3600}$, *I* being the horary variation of the planet's R.A.

The position of the Transit is indicated in the space immediately below the columns by the terms 'Illumination East,' or 'Illumination West,' according as the pivot which is perforated to admit the light of a lamp for illuminating the field of view, is East or West. In the same space the above Equatorial Intervals are inserted in the order in which they are passed over by a star above the pole.

The concluded times of transit over the mean of the seven wires, as given by the clock, are placed in the *tenth column*. When the object has been observed at all the wires, the concluded time is merely the mean of the times at the seven wires. In case of an incomplete observation, the concluded time is the mean of the noted times corrected for the omitted times in the manner already explained.

The columns which next follow contain steps of the calculation by which the Apparent Right Ascensions are inferred from the concluded times of transit; which is done by applying corrections for *Collimation Error*, *Level Error*, *Azimuth Error*, and *Clock Error*. The methods of obtaining these corrections will here be severally stated in the order of their application.

Collimation Error.—The errors of collimation in 1849 were determined exclusively by the collimating eye-piece. The following is the method of using this instrument.

A moveable wooden stage in the Transit Room, (intended originally for taking transits by reflexion for the determination of Level Error), is made to pass over the West Pier by running on a kind of rail-way, and gives the observer a position in which he can look through the Telescope when directed to the Nadir. The form of the collimating eye-piece which I use, is a common inverting microscope of three lenses, to which is attached, beyond the third lens, a piece of plate-glass, inclined at an angle of 45° to the axis of the microscope. The eye-piece of the Telescope being removed, this apparatus is put in its place, so that the plate-glass is between the wires and the microscope; and when the Telescope is directed vertically to a trough of mercury, the wires and their images by reflection become visible as dark lines on a bright ground; by throwing the light of a lamp on the plate-glass. That the wires and their images may be distinctly seen at the same time, it is necessary that the wires should be accurately in the geometrical focus of the object-glass of the Telescope. The position of the wires of the Transit Telescope was found to satisfy this condition very nearly and has consequently not been changed.

The determination of the collimation error of the middle wire is effected by measuring with the micrometer-wire the interval between the middle wire and the position of the micrometer-wire when it exactly coincides with its own image. This interval, expressed in arc, is the sum or difference of the level error and the collimation error of the middle wire. Hence the level error being ascertained at the time by the Spirit Level, the collimation error becomes known.

This method supposes the pivots to be exactly cylindrical. As the pivots of the Cambridge Transit do not satisfy this condition, I have not trusted to the collimating eye-piece for absolute determinations of error of collimation. Several contemporaneous determinations having been made by the two methods, by comparison of the results two constants have been obtained for correcting the values given by the collimating eye-piece, one for Illumination East and the other for Illumination West. Thus virtually the collimation error is determined by the usual method, and the collimating eye-piece is merely employed as an auxiliary, the use of which is very convenient on account of its being independent of the condition of the atmosphere.

Let l_w = the true level error, (that is, the angular elevation of the West end of the axis), the Telescope being directed to the Nadir and the Illumination *West*.

c = the collimation error of D , (that is, the deviation of D from the true line of collimation Westward) Illumination *West*.

a = the deviation of D Eastward from the vertical plane through the optical centre of the object-glass, as measured by the collimating eye-piece, Illumination *West*.

L_w = the level error as determined immediately by the Spirit Level, the Telescope being horizontal and directed Southward, and Illumination *West*.

and let l_e , $-c$, b , and L_e be respectively the same quantities when the Illumination is East. Then, since the deviation of D from the vertical plane towards the East is equal to the level error diminished by the collimation error, we have

Collimation Error of D (Illumination West) = $c = l_w - a$,

Collimation Error of D (Illumination East) = $-c = l_e - b$.

The constant values of $l_w - L_w$ and $l_e - L_e$ adopted in 1849 are $+0''.84$ and $+0''.73$, which were deduced from those used in 1848, as stated further on in the account of the reversion of the Transit on Aug. 24. Since by the Table in page ii, the mean of all the wires is nearer to the Illumination end of the axis than D by $0''.98$, the following are the formulæ for the error of collimation of the mean of the wires, inclusive of the correction $-0''.18$ for diurnal aberration:

Error of Collimation of the mean of the wires (Illumination West) = $L_w - a + 1''.64$,

Error of Collimation of the mean of the wires (Illumination East) = $L_e - b - 0''.43$.

These formulæ are used throughout the year. The following are the particulars of the several determinations of collimation error in 1849 by the collimating eye-piece.

Feb. 28, 4^h. Determination of the collimation error by the collimating eye-piece. The reflected images oscillated. The temperature of the Transit Room was $42^{\circ}.6$.

Illumination East.

Mean of 6 readings, micrometer-wire coinciding with its image.....	r 23,516
..... 6 with D	23,841

Hence the micrometer reading for coincidence with the vertical plane through the optical centre of the object-glass was less than that for coincidence with D ; and since the readings increase as the micrometer-wire is moved towards the micrometer-head, that is, *from* the Illumination end of the axis, it follows that D was to the *West* of the vertical plane by $0''.325$. Hence $b = -5''.54$, the values of $1''$ being $17''.06$. And by the Table of Level Errors in p. vii, $L_e = -4''.12$. Consequently $L_e - b - 0''.43 = +0''.99$. Hence the collimation error to the nearest tenth of a second is $+1''.0$, which is used from the beginning of the year.

Feb. 28, 5^h. Determination of the collimation error as above, after reversing the Transit. Great oscillation of the image of the micrometer-wire.

Illumination West.

Mean of 6 readings, micrometer-wire coinciding with its image.....	r 24,073
..... 6 with D	23,835

Hence D was to the *West* of the vertical plane by $0''.238$, and consequently $a = -4''.06$. Also by the Spirit Level $L_w = -6''.06$. Hence $L_w - a + 1''.64 = -0''.36$, which is the collimation error of the mean of the wires. The value adopted from the time of the reversion on Feb. 28 is $-0''.4$.

July 2, 9^h. The error of collimation was determined by Mr Breen with the collimating eye-piece. The mercury was agitated by wind.

Illumination West.

Mean of 10 readings, micrometer-wire coinciding with its image	r 23,771
..... 7 with D	23,903

Hence D was to the *East* of the vertical plane by $0''.132$, and $a = +2''.25$. At the same time $L_w = +0''.73$. Hence $L_w - a + 1''.64 = +0''.12$. The value $+0''.1$ is used from May 2.

Aug. 24, 3^h. Error of Collimation by the collimating eye-piece. The micrometer reading for the coincidence of the micrometer-wire with its image is inferred from seven readings taken by placing the micrometer-wire midway between D and its image, and four readings for coincidence of the micrometer-wire alternately with D and with its image.

Illumination West.

Mean of 11 readings, micrometer-wire coinciding with its image	r. 23,699
..... 8 with <i>D</i>	23,892

Hence *D* was to the East of the vertical plane by 0",193, and $a = +3'',29$. And as by levelling $L_w = +0'',78$, it follows that $L_w - a + 1'',64 = -0'',87$.

Aug. 24, 5^h. The Transit was reversed under circumstances not altogether favourable. The cross waved very much before the reversion, but was steady and distinct after the reversion. The image of the collimator's wire is too indefinite for satisfactory bisection. The definition was improved by putting a large piece of paper on the tube of the collimator, so as to prevent light falling horizontally on the object-glass of the Transit Telescope.

Illumination West.

Mean of 6 readings, micrometer-wire coinciding with <i>D</i>	r. 23,908
..... 6 bisecting South mark	24,345
..... 8 bisecting North mark	25,361

Illumination East.

Mean of 7 readings, micrometer-wire bisecting North mark	r. 22,292
..... 6 bisecting South mark	23,384
..... 6 coinciding with <i>D</i>	23,900
Reading for line of collimation by South mark	23,864
..... North mark	23,827
Reading for true line of collimation	23,845
Reading for coincidence with <i>D</i>	23,904

Since the readings increase as the micrometer-wire moves from the Illumination, after the reversion stars entering from the West came to *D* before coming to the true line of collimation. Hence the error of collimation of *D* was $\pm 0,059$ according as the Illumination was East or West, or in arc, $\pm 1'',01$. This result is only used for correcting the values of the constants $l_w - L_w$ and $l_e - L_e$.

Aug. 24, 6^h. After the reversion of the Transit the collimation error was determined by the collimating eye-piece. The reading for coincidence of the micrometer-wire with its image was inferred from five readings taken when the micrometer-wire, the wire *D*, its image, and the image of the micrometer-wire were placed at equidistant intervals, and from five readings taken after reversing the positions of the micrometer-wire and its image.

Illumination East.

Mean of 10 readings, micrometer-wire coinciding with its image	r. 24,032
..... 6 with <i>D</i>	23,892

Hence *D* was to the East of the vertical plane by 0",140, and $b = +2'',39$. And by the Spirit Level $L_e = +2'',98$. Hence $L_e - b - 0'',43 = +0'',16$. The value $+0'',2$ is used on Aug. 24, the Illumination being East during the observations of that day.

By the formulæ in p. iv, $l_w = a + c$ and $l_e = b - c$, *c* being the collimation error of *D*, Illumination West, as determined by reversing the instrument. Hence by the measures taken on Aug. 24, $l_w = +3'',29 - 1'',01 = +2'',28$; and $l_w - L_w = +2'',28 - 0'',78 = +1'',50$. Also $l_e = +2'',39 + 1'',01 = +3'',40$; and $l_e - L_e = +3'',40 - 2'',98 = +0'',42$.

The values of $l_w - L_w$ and $l_e - L_e$ used in 1848, viz. $+0'',76$ and $+0'',77$, depended on eight determinations. By giving, therefore, to the above results a weight of one-ninth, we obtain $l_w - L_w = +0'',84$ and $l_e - L_e = +0'',73$, which are the values adopted for 1849.

Aug. 26, 22^h. Determination of the collimation error by the collimating eye-piece. The Transit had been reversed on Aug. 25 at 3^h. The micrometer-wire was placed midway between *D* and its image.

Illumination West.

Mean of 7 readings, micrometer-wire coinciding with its image.....	^{r.} 23,729
..... 7 with <i>D</i>	23,866

Hence *D* was to the East of the vertical plane by 0',137, and $a = +2'',34$. By levelling Aug. 26, 22^h, $L_w = +0'',78$. Therefore $L_w - a + 1'',64 = +0'',08$. The mean between this determination and that on Aug. 24, viz. $-0'',87$, is $-0'',40$. This value is adopted from Aug. 3.

Nov. 22, 0^h. Error of Collimation by the collimating eye-piece. Nine readings for coincidence of the micrometer-wire with its image were taken, but the first three, which exceeded the remainder by about 0',02, were rejected. A like discordance has been noticed on other occasions. In the course of these measures, the same micrometer reading was obtained when the micrometer-wire was moved in opposite directions to make the bisections.

Illumination West.

Mean of 6 readings, micrometer-wire coinciding with its image.....	^{r.} 23,680
..... 6 with <i>D</i>	23,882

Hence, as above, $a = +0',202 = +3'',45$. And as $L_w = +1'',40$, it follows that $L_w - a + 1'',64 = -0'',41$. In consequence of this result the value $-0'',4$ has been used to the end of the year.

The values of collimation error, adopted in the reduction of the transits, are placed in the *eleventh column*, with bars across to indicate the interval during which each value is used.

The correction to the observed time of each transit is in seconds of time,

$$\frac{1}{15} \times \text{collimation error} \times \text{cosecant of N.P.D.},$$

the N.P.D. being considered negative when the star passes below the pole.

Level Error.—The angular deviation of the axis of revolution of the Transit from a horizontal plane is found by applying to the pivots a Spirit Level, furnished with a cross-level adjustment, and with graduated scales for reading off the positions of the extremities of the bubble. It is the practice to reverse the level five times, and thus obtain six eastern and six western readings, the scales being first disposed in positions convenient for reading off, which they retain during the whole of the operation. In the graduation of each scale the numbers increase in the direction from the middle of the bubble towards the extremity. Hence the algebraic excess of the sum of the western above the sum of the eastern readings, divided by the whole number of readings, is the measure, in scale-intervals, of the elevation of the west end of the axis above a horizontal plane. This is converted into angular measure by multiplying by 1'',3, the value of the scale-interval. Since stars above the pole require a positive correction to their time of transit when the west end of the axis is the more elevated, the result thus obtained is the level error with the sign proper for the application of that correction.

The levelling is generally performed once in a week, and the determination is used from the third or fourth day previous. The values of level error adopted in the reduction of the transits are placed in the *twelfth column*, with bars across to indicate the interval during which each value is used.

The following Table contains a list of all the Level Errors obtained in 1849, with the times of levelling, position of the instrument, and Temperature in degrees of Fahrenheit, as shewn by a Thermometer in the Transit Room. In all the levellings, with the exception mentioned below, the Telescope was horizontal, and the object-glass southward.

Level Errors in 1849.

Time of Levelling.	Level Error.	Position of Illum. End of Axis.	Temperature.	Time of Levelling.	Level Error.	Position of Illum. End of Axis.	Temperature.	Time of Levelling.	Level Error.	Position of Illum. End of Axis.	Temperature.
Jan. 1. 2 ^h 1 ^m	-3,91	East	36	May 7. 2 ^h	+1,81	West	51	Sept. 10. 2 ^h	+0,53	West	60
8. 2 ^h	-3,29	—	35	14. 1 ^h 3 ^m 4 ^s	+2,00	—	—	12. 1 ^h 1 ^m 1 ^s	+0,78	—	67
16. 1 ^h	-3,60	—	42	28. 1 ^h	+1,86	—	59	18. 2 ^h	+0,65	—	54
22. 1 ^h	-3,54	—	49	7. 1 ^h 3 ^m 4 ^s	+1,52	—	67	18. 2 ^h	+1,36	—	54
30. 1 ^h	-4,51	—	37	12. 1 ^h 3 ^m 4 ^s	+0,91	—	53	24. 1 ^h 1 ^m 1 ^s	+2,22	—	59
Feb. 5. 1 ^h	-3,74	—	48	June 20. 2 ^h	+1,21	—	60	Oct. 8. 2 ^h	+2,52	—	—
12. 1 ^h	-3,77	—	45	25. 2 ^h	+1,14	—	64	8. 2 ^h	+2,78	—	—
20. 1 ^h	-4,20	—	45	July 2. 2 ^h	+0,73	—	—	11. 11 ^h	+2,25	—	—
27. 1 ^h	-3,68	—	44	11. 1 ^h 3 ^m 4 ^s	+1,39	—	69	16. 1 ^h 3 ^m 4 ^s	+2,21	—	52
28. 3 ^h	-3,99	—	43	16. 2 ^h	+0,95	—	66	23. 2 ^h	+1,85	—	55
28. 4 ^h 1 ^m	-4,12	—	41	24. 2 ^h	+0,77	—	58	30. 2 ^h	+1,66	—	53
28. 5 ^h	-6,06	West	41	31. 2 ^h	+0,57	—	62	Nov. 7. 2 ^h	+1,50	—	43
Mar. 13. 2 ^h	-4,98	—	48	Aug. 6. 2 ^h	+0,65	—	61	13. 2 ^h	+2,57	—	53
19. 23 ^h	-5,85	—	46	14. 2 ^h	+0,35	—	63	19. 2 ^h	+2,54	—	47
26. 2 ^h	-6,24	—	40	20. 2 ^h	+0,53	—	62	22. 1 ^h	+1,40	—	43
Apr. 2. 2 ^h	-6,29	—	49	24. 2 ^h	+0,78	—	65	26. 2 ^h	+1,53	—	39
10. 2 ^h	-6,46	—	47	24. 5 ^h 1 ^m 2 ^s	+2,98	East	65	Dec. 3. 2 ^h	+2,28	—	42
16. 2 ^h	-6,33	—	45	26. 22 ^h	+0,78	West	62	10. 2 ^h	+2,38	—	40
21. 3 ^h	-6,50	—	41	26. 22 ^h 1 ^m 4 ^s	-0,32	—	62	19. 2 ^h	+2,91	—	45
25. 1 ^h 1 ^m 1 ^s	+1,99	—	48	Sept. 3. 2 ^h	+1,34	—	68	31. 2 ^h	+2,73	—	35
30. 1 ^h 4 ^m 1 ^s	+2,64	—	58								

* * In the reduction of the observations the above values of level error are taken to the nearest tenth of a second.

After the first levelling of Feb. 28 I cleaned the pivots, which had become very foul, the instrument being raised from the Y's for this purpose. The next levelling seems to shew that the level error was not affected by this state of the pivots.

April 21, 5^h, I turned the screws of the east pier to diminish the level error. The reading of each screw-head was increased by 2,1 intervals.

The first levelling on Aug. 26 was taken in the usual manner, the feet of the level being applied to parts of the pivots which appear to be a little worn by the continual application of the level. In the other levelling the telescope was pointed 45° south of the zenith, and the feet of the level were applied to parts of the pivots not worn in the same manner. The result of the latter levelling is not made use of.

The levellings from Sept. 12 to Oct. 11 inclusive, with the exception of the first of Sept. 18, were taken by Mr Carrington. The second levelling of Oct. 8 was taken after lighting the lamp for illuminating the field of view of the telescope, and leaving it in its usual position at the end of the pivot for ten minutes. The levelling of Oct. 11 was taken after the illuminating lamp had been in its place all the previous part of the night. The scales were read off with difficulty by a lamp held near the observer's head, which seemed to have the effect of causing variations of the bubble. The effect of the heat of the illuminating lamp on the level error seems to be inappreciable. The mean result of the two levellings on Sept. 18 is used from Sept. 17: the second levelling of Oct. 8, in which the level was applied only four times, is not taken into account.

The correction for the unequal radii of the pivots, obtained in the manner explained in Vol. X. p. xxviii, is -0",45 by the second and third levellings of Feb. 28, and -0",51 by the levellings of Aug. 24. These results, compared with those in p. li of Vol. XVII, indicate the progressive effect of applying the feet of the level to the same parts of the pivots, rather than a change in the radii of the pivots. See the remark above on the levellings of Aug. 26.

The correction applied to the observed time of each transit, previously corrected for error of collimation, is

$$\frac{1}{15} \times \text{lever error} \times \cosine \text{ of Zen. Dist.} \times \text{cosec. of N.P.D.,}$$

the N.P.D. being negative when the star is below the pole.

In addition to the corrections for level error by the above formula, corrections have been applied (previous to the determination of azimuth error) for variations of level error due to the forms of the pivots, according to the subjoined Table, the formation of which is explained in pages xlix—lii of the Introduction to Volume XVII.

N.P.D.	Correction Illum. W.	Correction Illum. E.	N.P.D.	Correction Illum. W.	Correction Illum. E.
-37° to -17°	-0,01	+0,01	32° to 77°	-0,01	+0,01
δ Ursæ Min. SP.	+0,25	-0,15	77 ... 78	-0,01	+0,02
Polaris SP.	+0,53	-0,39	78 ... 87	-0,01	+0,01
Polaris	-0,49	+0,47	87 ... 90	0,00	+0,01
δ Ursæ Minoris	-0,20	+0,20	90 ... 107	0,00	0,00
+20° to 24°	-0,03	+0,03	107 ... 112	+0,01	0,00
24 to 32	-0,02	+0,02	112 ... 128	0,00	0,00

Azimuth Error.—The angle by which the plane of motion of the true line of collimation (supposing the level error corrected), deviates from the plane of the meridian, has been generally found by two or more transits of Polaris, or δ Ursæ Minoris, alternately above and below the pole, and as often as possible, consecutive. When this method could not be employed, the azimuth error has been deduced from a comparison of a single transit of one of these stars with the transit of a known star above and distant from the pole.

The formulæ of calculation applicable to these methods are obtained as follows. Let A, A' be the apparent right ascensions of two known stars, t, t' their times of transit as shewn by the clock, corrected for collimation and level errors, τ the clock's loss in the interval between the transits, h, h' , the coefficients of azimuth error, calculated by the formula, coefficient = $\frac{1}{15} \sin. \text{Zen. Dist.} \times \text{cosec. N.P.D.}$, and therefore positive except between the zenith and the pole, and z the azimuth error in seconds of space, considered positive when it causes the plane of motion of the line of collimation to deviate on the South side of the Zenith towards the East. Then

$$A' - A = t' + h'z + \tau - (t + hz),$$

$$\text{or } z = \frac{A' - A - (t' - t) - \tau}{h' - h},$$

which is the general formula for azimuth error. That it may be safely used, the denominator $h' - h$ must be large, and it is consequently necessary that one at least of the stars should be near the pole.

When two known stars, one or both near the pole, are employed, $A' - A$ is the difference of their assumed apparent R.A., and τ is inferred from the differences of the uncorrected times of transit of any southern star observed on two days near the time of the observations made use of for azimuth error.

If two observations of the same polar star be used, one above and the other below the pole, and if ϵ be the increase of its R.A. in the interval between the observations, $A' - A = 12^h + \epsilon$, and

$$z = \frac{12^h + \epsilon - (t' - t) - \tau}{h' - h},$$

which is independent of any assumed R.A. of the star.

When three equidistant transits of a polar star, alternately above and below the pole, have been obtained, there will be another equation like the preceding, in which ϵ and τ have nearly the same values; and if t'' be the time of the third transit, corrected for errors of collimation and level, the two equations give

$$z = \frac{(t'' - t') - (t' - t)}{2(h' - h)},$$

which equation is independent both of the R.A. of the stars, and of their change of R.A. and the clock's rate.

The numerical computation from the preceding formulæ is performed as follows, the azimuth error being always a small quantity. The seconds of transit of the stars being first corrected for collimation and level errors, when two stars are used, the seconds of transit of the second are further corrected for the loss of the clock in the interval between the transits. From the seconds thus corrected the seconds of the sidereal interval between the transits, affected only by azimuthal error, are deduced. The seconds of the same interval are then inferred from the seconds of the assumed R.A. of the stars. The algebraic excess of the latter difference above the former (care being taken to add or subtract 60^s that the excess may not contain a large number of seconds) is the azimuthal correction of the interval between the transits. This quantity divided by $h'-h$, the algebraic excess of the coefficient of azimuth error for the second star above that for the first, gives the azimuth error with its proper sign. The process is the same in the case of two transits of a polar star, one above and the other below the pole, the change of the star's R.A. in the interval being taken into account.

When there are three consecutive transits of a polar star, the change of the star's R.A. and the clock's rate are not considered, and the adopted azimuth error is the mean of the two results which would be obtained by the above rule from the first and second, and from the second and third. If more than three consecutive transits be observed, a value of the azimuth error is deduced from the first, second, and third; another from the second, third, and fourth; and so on. If the different values are nearly equal, the mean of all would be used; otherwise they would be used separately or in groups.

The following Table contains a list of the Azimuth Errors in 1849, with the data employed in calculating them, by means of which they may be readily verified.

Calculation of Azimuth Errors in 1849.

Approximate Mean Time of observation.	Star.	Seconds of transit corrected for Collimation and Level Errors.	Correction for rate of Clock.	Seconds of the Star's assumed R.A.	Azimuthal Correction of the Interval between the transits.	Value of $h'-h$.	Azimuth Error.	Remarks.
Jan. 26. 9 26. 10	α Orionis δ Ursæ Min. SP.	3,91 46,12	+ 0,02	0,90 44,04	+ 0,91	+ 0,693	+ 1,31	Used from Jan. 14. The azimuth error used from the beginning of the year to the end of Jan. 6 is $+1^m 2$, as determined 1848 Dec. 21.
Jan. 30. 13 30. 21 31. 5	Regulus δ Ursæ Minoris α Arietis	23,07 47,66 42,77		20,68 44,98 40,34	- 0,29 + 0,25	- 0,679 + 0,671	+ 0,43 + 0,37	The mean of these is used from Jan. 29. The intervals between the observations being nearly equal, the clock's rate is not taken into account.
Feb. 8. 8 8. 9	α Orionis δ Ursæ Min. SP.	58,43 43,07	+ 0,01	0,78 46,67	+ 1,25	+ 0,693	+ 1,82	
16. 9 16. 21 17. 9	δ Ursæ Min. SP. δ Ursæ Minoris δ Ursæ Min. SP.	41,27 43,49 42,96			- 2,22 + 0,53	- 1,375 + 1,375	+ 1,00	
Mar. 10. 2 10. 10	Polaris α Hydræ	17,18 59,98	+ 0,26	24,02 11,46	+ 4,38	+ 1,572	+ 2,78	
17. 1 17. 13 18. 1	Polaris Polaris SP. Polaris*	11,35 4,26 11,92			7,09 - 7,66	+ 3,133 - 3,133	+ 2,55	* At only two wires.

Approximate Mean Time of observation.	Star.	Seconds of transit corrected for Collimation and Level Errors.	Correction for rate of Clock.	Seconds of the Star's assumed R.A.	Azimuthal Correction of the Interval between the transits.	Value of $h'-h$.	Azimuth Error.	Remarks.
Mar. 29. 9 30. 1	α Hydræ Polaris	56,04 7,88	0,09	11,27 19,83	- 3,37	- 1,572	+ 2,14	The mean between these two is used from March 24.
Apr. 3. 12 12	Polaris SP. Spica	57,04 0,25	0,00	19,35 16,45	- 6,11	- 1,559	+ 3,92	
26. 11 26. 23	Polaris SP. Polaris	0,41 5,94	+ 0,09	23,54 23,72	- 5,44	- 3,133	+ 1,74	
29. 23 30. 7	Polaris Regulus	7,15 2,71	+ 0,20	24,60 20,36	0,00	+ 1,558	0,00	These two are not used, the next being preferred.
May 2. 22 3. 7	Polaris Regulus	6,13 1,65	+ 0,13	25,57 20,32	- 0,90	+ 1,1558	- 0,58	
May 3. 22 4. 10 4. 22	Polaris Polaris SP. Polaris	6,63 3,90 4,58			+ 2,73 - 0,58	+ 3,133 - 3,133	+ 0,53	
May 29. 9 29. 12	Polaris SP. α Serpentis	54,48 7,36	+ 0,05	40,76 52,01	- 1,68	- 1,571	+ 1,07	Not used.
May 31. 8 31. 20 June 1. 8	Polaris SP. Polaris Polaris SP.	56,03 57,49 56,04			- 1,46 + 1,45	- 3,133 + 3,133	+ 0,46	
June 8. 8 8. 8	Polaris SP. Spica	55,61 26,88	0,00	48,45 16,40	- 3,32	- 1,559	+ 2,13	
25. 12 25. 12 25. 13	μ^1 Sagittarii δ Ursæ Minoris ζ Aquilæ	55,34 27,36 39,15		46,73 19,62 30,60	+ 0,87 - 0,81	- 0,703 + 0,678	- 1,24 - 1,20	The mean of these, which requires no correction for clock's rate, is used from June 19.
July 6. 10 6. 11 6. 12	α Ophiuchi δ Ursæ Minoris ζ Aquilæ	3,12 23,05 35,80		57,97 18,58 30,71	+ 0,68 - 0,62	- 0,679 + 0,678	- 1,00 - 0,91	
16. 10 16. 11	μ^1 Sagittarii δ Ursæ Minoris	14,10 43,99	+ 0,01	46,85 17,11	+ 0,36	- 0,703	- 0,51	
31. 10 31. 10	μ^1 Sagittarii δ Ursæ Minoris	4,63 31,74	+ 0,01	46,82 13,68	- 0,26	- 0,703	+ 0,37	The mean of these two is used from July 27.
Aug. 3. 10 3. 11	δ Ursæ Minoris ζ Aquilæ	29,60 46,56	+ 0,01	12,79 30,77	+ 1,01	+ 0,678	+ 1,49	
6. 9 6. 10	δ Ursæ Minoris ζ Aquilæ	25,24 44,56	+ 0,02	11,97 30,76	- 0,55	+ 0,678	- 0,81	The mean of these two is used from Aug. 6.
8. 9 8. 10	δ Ursæ Minoris ζ Aquilæ	21,44 42,88	+ 0,02	11,44 30,75	- 2,15	+ 0,678	- 3,17	
10. 9 10. 12	δ Ursæ Minoris β Aquarii	20,41 49,06	+ 0,15	10,88 39,17	- 0,51	+ 0,692	- 0,74	The mean of these two is used from Aug. 10.
13. 9 13. 9	μ^1 Sagittarii δ Ursæ Minoris	53,70 15,73	+ 0,01	46,72 9,89	+ 1,13	- 0,703	- 1,61	
Sept. 4. 7 4. 9	δ Ursæ Minoris γ Aquilæ	47,11 51,36	+ 0,06	1,95 7,29	- 1,97	+ 0,680	- 2,90	The mean of these three, viz. - 1'',04, is used from Aug. 24.
5. 2 5. 7	Polaris SP. μ^1 Sagittarii	39,20 34,35	+ 0,26	52,60 46,39	- 1,62	- 1,551	+ 1,04	
5. 7 5. 7	μ^1 Sagittarii δ Ursæ Minoris	34,35 48,65	+ 0,01	46,39 1,59	+ 0,89	- 0,703	- 1,27	
5. 7 5. 19	δ Ursæ Minoris δ Ursæ Min. SP.	8,65 51,24	+ 0,61	1,59 1,41	- 3,38	+ 1,375	- 2,46	Not used, δ Ursæ Minoris being taken at only two wires and very doubtfully.

Approximate Mean Time of observation.	Star.	Seconds of transit corrected for Colli- mation and Level Errors.	Correction for rate of Clock.	Seconds of the Star's assumed R.A.	Azimuthal Correction of the Interval between the transits.	Value of $h'-h$.	Azimuth Error.	Remarks.
Sept. 17. 1 17. 8	Polaris SP. γ Aquilæ	36,33 48,91	“ + 0,12	57,36 7,11	“ - 2,95	- 1,574	+ 1,87	Not used, the next being pre- ferred.
19. 1 19. 13	Polaris SP. Polaris	37,40 37,02	+ 0,23	58,04 58,25	+ 0,36	- 3,133	- 0,11	
26. 13 27. 1	Polaris Polaris SP.	34,68 35,62	+ 0,35	0,36 0,43	- 1,22	+ 3,133	- 0,39	
Oct. 6. 0 8. 7	Polaris SP. β Aquilæ	34,50 28,39	+ 0,34	1,90 55,71	- 0,42	- 1,571	+ 0,27	
Oct. 15. 11 15. 23	β Ceti Polaris SP.	36,42 37,85	0,00	3,37 2,01	- 2,79	+ 1,552	- 1,80	Not used, the observation of Polaris being unsatisfactory.
18. 11 18. 23 19. 11	Polaris Polaris SP. Polaris	34,71 33,49 33,37			+ 1,22 + 0,12	+ 3,133 - 3,133	+ 0,18	
27. 11 27. 11	β Ceti Polaris	31,13 28,12	+ 0,01	3,35 0,92	+ 0,57	- 1,581	- 0,36	Not used.
29. 11 29. 23	Polaris Polaris SP.	26,19 24,21	+ 0,19	0,49 0,40	+ 1,70	+ 3,133	+ 0,54	The mean of these is used from Oct. 25.
29. 11 30. 23	Polaris Polaris SP.	26,19 25,32	+ 0,29	0,49 0,26	+ 0,35	+ 3,133	+ 0,11	
Nov. 4. 22 5. 11 5. 22 6. 10	Polaris SP. Polaris Polaris SP. Polaris	22,48 25,38 20,98 25,08			- 2,90 + 4,40 - 4,10	- 3,133 + 3,133 - 3,133	+ 1,18 + 1,38	The mean of these is used from Nov. 4.
11. 22 13. 6	Polaris SP. β Aquarii	15,24 0,87	+ 0,51	55,67 38,39	- 3,42	- 1,562	+ 2,19	Not used, the next being pre- ferred.
15. 22 16. 10 16. 22	Polaris SP. Polaris Polaris SP.	11,56 19,55 12,70			- 7,99 + 6,85	- 3,133 + 3,133	+ 2,37	
28. 9 28. 10	Polaris α Arietis	11,98 7,21	- 0,03	49,07 44,02	- 0,25	+ 1,550	- 0,16	
Dec. 4. 8 4. 8	Polaris α Arietis	16,69 9,92	- 0,01	45,60 44,00	+ 5,18	+ 1,550	+ 3,34	
29. 7 29. 8	Polaris α Ceti	15,51 8,91	+ 0,96	27,51 26,81	+ 4,94	+ 1,564	+ 3,16	

*. * In the reduction of the observations the above values of the azimuth error are taken to the nearest tenth of a second.

The assumed apparent R.A. employed in the above calculations are the R.A. of the Nautical Almanac, corrected by the small quantities mentioned under the head of Clock Error in page xiii.

The azimuth errors adopted in the reduction of the transits are placed in the *thirteenth column*, with bars across to indicate the interval during which each value is used. The correction in seconds of time applied to each Transit is,

$$\frac{1}{15} \times \text{azimuth error} \times \sin. \text{ of Zen. Dist. } \times \text{cosec. N.P.D.,}$$

the zenith distance being negative to the north of the zenith, and the north polar distance negative to the north of the pole.

The seconds of transit of each object, corrected for the errors of collimation, level, and azimuth, are arranged in the *fourteenth column*. If the three errors be called respectively a , b , c , and if δ be the north polar distance of the object, and z the zenith distance south, that is, the algebraic excess of δ above $37^{\circ}.47'.8''$, the co-latitude of the Observatory, then the sum of the three corrections is,

$$a \cdot \frac{1}{15 \sin \delta} + b \cdot \frac{\cos z}{15 \sin \delta} + c \cdot \frac{\sin z}{15 \sin \delta}.$$

The computation of this quantity has been generally performed by means of a machine constructed by Mr Simms under my direction, a description of which is given in the Monthly Notices of the Royal Astronomical Society, Vol. X. p. 182. The machine calculates at once the above quantity when a , b , c , and δ are given, and saves the trouble of writing down the coefficients of a , b , and c . The result it gives is accurate to the hundredth of a second, if the star be not very near the pole. It has not been used in the reductions of the observations of Polaris and δ Ursæ Minoris, nor in the calculation of azimuth error. In these instances Table II. at the end of this Introduction has been employed. Table I., though not used, is added to facilitate the verification of the calculations.

Clock Error.—The errors of the Clock are the excesses of the assumed apparent right ascensions of the stars which have been selected for the determination of true sidereal time, above the clock times of meridian transit. The assumed Mean Right Ascensions, Jan. 1, 1849, of these fundamental stars are given in the subjoined Table, in which Polaris and δ Ursæ Minoris are included, because their apparent right ascensions are employed for finding the azimuth error.

Star.	Assumed Mean R.A. Jan. 1, 1849.	Excess above the R.A. of Naut. Alm.	Star.	Assumed Mean R.A. Jan. 1, 1849.	Excess above the R.A. of Naut. Alm.
	<i>h. m. s.</i>	<i>s.</i>		<i>h. m. s.</i>	<i>s.</i>
α Andromedæ..	0. 0. 35,58	+ 0,13	Arcturus.....	14. 8. 46,59	+ 0,12
β Ceti.....	0. 36. 0,46	+ 0,11	ϵ Bootis.....	14. 38. 23,61	+ 0,11
Polaris.....	1. 4. 44,82	+ 1,49	α^2 Libræ.....	14. 42. 32,06	+ 0,10
α Arietis.....	1. 58. 40,32	+ 0,11	α Coronæ Bor..	15. 28. 17,75	+ 0,08
α Ceti.....	2. 54. 23,47	+ 0,02	α Serpentis....	15. 36. 50,00	+ 0,07
Aldebaran....	4. 27. 15,63	- 0,01	δ Ophiuchi....	16. 6. 26,23	+ 0,10
Rigel.....	5. 7. 17,02	+ 0,09	Antares.....	16. 20. 9,43	+ 0,07
β Tauri.....	5. 16. 45,03	+ 0,06	α Herculis....	17. 7. 45,87	+ 0,11
α Orionis.....	5. 46. 59,86	0,00	α Ophiuchi....	17. 27. 55,65	+ 0,13
Sirius.....	6. 38. 29,75	+ 0,06	μ^1 Sagittarii....	18. 4. 44,05	+ 0,12
Castor.....	7. 24. 57,49	+ 0,05	δ Ursæ Minoris.	18. 21. 2,49	- 0,45
Procyon.....	7. 31. 23,74	+ 0,15	β Lyræ.....	18. 44. 30,47	+ 0,22
Pollux.....	7. 36. 4,19	+ 0,08	ζ Aquilæ.....	18. 58. 28,25	+ 0,13
ϵ Hydræ.....	8. 38. 46,60	+ 0,02	γ Aquilæ.....	19. 39. 4,86	+ 0,08
α Hydræ.....	9. 20. 10,05	+ 0,12	α Aquilæ.....	19. 43. 24,90	+ 0,04
Regulus.....	10. 0. 19,52	+ 0,02	β Aquilæ.....	19. 47. 53,74	+ 0,07
δ Leonis.....	11. 6. 4,29	+ 0,07	α^2 Capricorni...	20. 9. 40,38	+ 0,12
β Leonis.....	11. 41. 21,27	+ 0,08	β Aquarii.....	21. 23. 36,41	+ 0,09
β Corvi.....	12. 26. 27,94	+ 0,20	α Aquarii.....	21. 58. 1,59	+ 0,08
Spica.....	13. 17. 14,70	+ 0,11	α Pegasi.....	22. 57. 14,55	+ 0,06

The assumed Mean Right Ascensions were obtained by adding the annual variations to the Mean Right Ascensions, Jan. 1, 1848, concluded from the observations of 1848, whenever the number of observations from which the R.A. of any star was concluded, was not less than twenty. In other cases, if A be the assumed R.A. of 1848, and if A' be the R.A. resulting from a number (n) of observations in that year less than 20, the assumed R.A. of 1849 is $A + (A' - A) \frac{n}{20}$ increased by the annual variation. The mean excess of the assumed R.A. of the fundamental stars above the R.A. of the Nautical Almanac is + 0,089, which agrees very nearly with the result of the observations of 1848.

To form the assumed apparent R.A. used for the determination of the azimuth error and the error of the clock, the excesses above the Nautical Almanac in the foregoing table, are added to the apparent R.A. of that work. It will be seen that the corrections which are thus adopted for aberration, precession, and nutation, are the same as those of the Nautical Almanac, which assume the constant of aberration to be $20''.36$, and that of lunar nutation to be $9''.25$. The assumed apparent R.A. of Polaris and δ Ursæ Minoris take account of the additional corrections, depending on the Moon's longitude, which are given in pages 502 and 503 of the Nautical Almanac for 1849. In all cases in which the stars are used for the determination of azimuth error, the seconds of the assumed R.A. are inserted in the Table of azimuth errors already given in this Introduction.

The clock errors in the *fifteenth column* are the excesses of the assumed apparent right ascensions of the fundamental stars above the times of meridian transit. The times of putting forward the minute-hand of the clock are stated in the space immediately below the columns. This notice is inadvertently omitted between Aug. 24 and Aug. 28. The clock accidentally stopped three times in the course of the year, as mentioned in the notes, and during cold weather the rate was accelerated and was somewhat irregular. After being cleaned at the end of the year its rate was more steady.

For the purpose of calculating the correction to be applied to each observation for error of the clock, the observations are divided into groups severally containing stars proper for giving clock errors. These groups, the limits of which are marked by bars across the column of clock errors, are separated by intervals during which no observations have been taken, and which, as often as possible, belong to consecutive nights. The mean of the clock errors in each group is considered to apply to the mean of the times of transit of the stars which furnish them. The comparison of this mean error with errors similarly derived from the next preceding and following groups, gives a preceding and a following rate; whence a rate is inferred, which is assumed to hold uniformly throughout the middle group. No definite rule can be given for inferring the adopted rate: attention is paid to the probable relative accuracy of the rates on which it depends, and also to the proportion of the intervals separating the preceding and following mean clock errors from the intermediate one. Those clock errors which are included in brackets are not used for determining the clock's rate.

When in the same group there are clock errors by two observers, the clock's mean error and rate are entirely derived from the observations of one observer, and the clock errors of the other are put in brackets, being only used for finding the difference of their personal equations. The apparent R.A. from the observations of the latter observer are corrected for this difference. This rule has been applied to observations of Mr Carrington (C) and Mr Breen (B) from Sept. 22 to Oct. 12. In several instances the same star was observed by both observers at the same transit, the times being taken at four wires by one and at three by the other, for the express purpose of determining difference of personal equation. In these cases, the two sets of transits are reduced as if they belonged to different objects, but the mean of the two results is considered to be the apparent R.A. from observation. The following is the calculation of the difference of personal equations of C and B, the mean clock errors of the two observers on the same day being first reduced to the same epoch.

Day of Observation, 1849.	Clock's loss by B.	No. of B's Obser- vations.	Clock's loss by C.	No. of C's Obser- vations.	Excess of B's Clock error.	Assumed Weight.
Sept. 22	20,70	1	20,32	2	+ 0,38	1
24	21,95	3	21,82	3	+ 0,13	5
25	22,90	6	22,54	2	+ 0,36	6
26	23,76	4	23,36	2	+ 0,40	4

Taking account of the assumed weights of the several results, the mean excess of B's clock error is $+ 0''.30$, that is, B observes *earlier* than C by this interval. Hence as the clock's adopted error and rate are deduced from B's observations, those of C on Sept. 24, 25, 26, and Oct. 2, are corrected by $- 0''.30$.

Another determination of the difference of the personal equations of B and C was similarly derived from observations from Oct. 8 to Oct. 12, as follows:

Day of Observation, 1849.	Clock's loss by B.	No. of B's Obser- vations.	Clock's loss by C.	No. of C's Obser- vations.	Excess of B's Clock error.	Assumed Weight.
Oct. 8	27,52	5	27,32	2	+ 0,20	5
9	27,46	4	27,10	2	+ 0,36	4
10	27,34	7	27,05	2	+ 0,29	7
11	27,15	3	26,63	1	+ 0,52	1
12	27,26	3	26,82	2	+ 0,44	3

In addition to the observations of fundamental stars from which the foregoing results were derived, there were observations of other stars taken partly by one and partly by the other observer at the same transits, which when reduced to the mean of all the wires gave the following differences:

Day.	No. of Ob- servations.	Mean Excess of C's time.	Assumed Weight.
Oct. 9	2	+ 0,48	2
10	1	+ 0,08	1
12	2	+ 0,40	2

The eight different results taken with their respective weights give as a mean result $+0^s,33$. Hence C's apparent R.A. from Oct. 8 to Oct. 12 have been corrected by $-0^s,33$. It may be remarked that the last difference of personal equation is the same as that between myself and Mr Breen, as determined in Vol. XVII. p. xxxv, and very nearly the same as that between Mr Todd and Mr Breen, as determined in page lv of the same volume, so that three of the four observers appear to observe alike.

The single observation of Mr Breen on Dec. 19 is only used for finding a value of the difference between his personal equation and that of Mr Todd. Differences of personal equation are taken into account when necessary, in deducing the clock's rate from groups of observations taken by different observers.

The adopted rate, determined in the manner above stated, is placed in the *sixteenth column*, with bars across to mark the limits within which it is used. These limits generally coincide with the limits of the groups of observations.

The Apparent Right Ascensions from observation, given in the *seventeenth column*, are deduced as follows from the clock times of meridian transit. The adopted rate is employed, first, in calculating from the mean clock error of the group to which it applies, the correction for clock error at each 0^h of sidereal time which occurs within the limits of the group, and then in finding the additional correction for the interval between each transit and the next preceding 0^h . The result of adding the sum of these corrections to the time of meridian transit is the apparent R.A. concluded from the observation. The apparent R.A. of the fundamental stars, if fewer than three are contained in the same group, and the apparent R.A. of Polaris and δ Ursæ Minoris, if the azimuth error is not determined by two or more transits of one of these stars, are not inserted in the column of apparent R.A.

The *eighteenth column* contains the initial of the observer's name, the letters C, B, and T indicating respectively observations taken by Mr Carrington, Mr Breen, and Mr Todd.

The notes in the space at the bottom of the page consist of incidental and explanatory remarks, and such as may serve to identify the stars. To give an opportunity of judging of the weight due to individual observations, it was thought right to omit the mention of no circumstance which seemed likely in any way to affect the result of an observation.

II. *Mean Right Ascensions of the Stars as deduced from the separate observations, with the Corrections applied to the apparent Right Ascensions.*

The columns in pages 42—60 contain the names of the stars arranged in order of right ascension, the days on which each star was observed, the corrections (for aberration, precession, and nutation) which have been added algebraically to the apparent Right Ascensions extracted from the columns of 'Apparent R.A. from observation,' in pages 1—39, and the resulting mean Right Ascensions, Jan. 1, 1849. The corrections are calculated as follows.

For stars whose apparent Right Ascensions are given in the Nautical Almanac, the corrections are obtained by subtracting the apparent from the mean Right Ascensions of that work, after applying to the former in the instances of Polaris, and δ Ursæ Minoris, the small corrections in pages 502 and 503. For a star in the Catalogue of the British Association, and not included in the list of the Nautical Almanac, the correction (δa) is calculated by the formula,

$$-\delta a = Aa + Bb + Cc + Dd,$$

$\log A$, $\log B$, $\log C$, and $\log D$ being taken without alteration from the Nautical Almanac, and $\log a$, $\log b$, $\log c$, $\log d$, from that Catalogue. The formula employed for all other stars is, as in preceding years,

$$\begin{aligned} -\delta a = & \frac{A}{15} \cos \text{R.A.} \operatorname{cosec} \text{N.P.D.} + \frac{B}{15} \sin \text{R.A.} \operatorname{cosec} \text{N.P.D.} + C \times [0,4869] \\ & + \frac{C}{15} \times [1,3020] \times \sin \text{R.A.} \cotan \text{N.P.D.} + \frac{D}{15} \cos \text{R.A.} \cotan \text{N.P.D.}, \end{aligned}$$

the numerical constants printed in the skeleton forms for calculation being suffered to remain unaltered. The more correct values are 0,4872 and 1,3022.

III. *Apparent North Polar Distances observed with the Mural Circle.*

The particulars of observations with the Mural Circle, and the data for calculating the apparent North Polar Distances, are contained in pages 62—82. The following is the explanation of the contents of the separate columns.

The *first column* has the day of observation, commencing always with the Sun's passage.

The *second column* contains the name of the object observed. The letter *R* following the name, denotes that the object was observed by reflexion in a trough of mercury. The stars are named according to the rule adopted with respect to the Transit observations. Anonymous stars are designated by their approximate mean right ascensions.

The order of the six microscopes, beginning with *A*, which is at the northern extremity of the horizontal diameter of the circle, and proceeding over the highest part of the limb, is *ACEBDF*, so that *A* and *B*, *C* and *D*, *E* and *F*, are severally at the ends of a diameter. The order of the graduation is from South to North through the highest point of the circle. All micrometer readings increase as the micrometer wires move *towards* the graduated micrometer-heads. The microscopes have their micrometer-heads all directed the same way relatively to the graduation of the circle: that of *A* is *downwards*. When the Telescope is horizontal and its object-glass looks southward, the micrometer-head of the eye-piece micrometer is also downwards.

The *six succeeding columns* contain the readings of the six microscopes. The divisions of the graduation of the circle are 5' apart. The minutes, which are set down in the first of these columns, are indicated by the number of indents of the comb of the microscope in the interval between the division bisected by the micrometer wire and the hole of the comb; and the seconds and fraction of a second are taken from the micrometer-heads. The bisected division is that next to the hole, on the *same* side, as seen in an inverting microscope, as the micrometer-head, excepting in some instances mentioned hereafter.

The microscope readings taken in the manner just stated, are affected with an error of *Runs*, unless the micrometer wire is carried by five turns of the micrometer exactly from the image of one division to that of the next, which very rarely happens to be the case. The corrections applied on this account, are obtained in the following manner. The Circle being clamped in such a position that a division is near the zero of the

microscope, this division and the adjacent one towards the micrometer-head are bisected. The excess of the micrometer reading, for the former, which is called the *preceding* division, above the micrometer reading for the other, which is called the *following* division, is the quantity to be added to a microscope reading of 5' to correct for the error in question. For a less reading the correction is proportionally less. Instead of correcting for each microscope reading separately, it is sufficiently accurate and more expeditious, to add the excesses of the six microscopes together, to take a part of the sum bearing the same ratio to the whole as the approximate mean microscope reading to 5', and then adding up this part with the six microscope readings, to divide the sum by 6 to obtain the corrected mean reading. The sum of the excesses is the 'Correction for Runs for 5'' inserted in the *ninth column*, with bars across to indicate the interval during which each value is used.

It sometimes happens in reading the microscopes, that a division, falling near the hole of the comb, is bisected when on the negative side of zero. In such cases the minutes of the microscope readings are put down for the sake of uniformity as if the division on the positive side had been bisected, and a negative correction, proportional to the difference between $5'$ and the mean microscope reading, is applied for Runs. When this circumstance occurs it is mentioned in the notes.

The following Table exhibits the results of the observations made in 1849 for the Error of Runs of the six microscopes. The temperature in degrees of Fahrenheit, whenever it was noted, is included, because the changes in the amount of Runs appear to depend in great measure on changes of temperature.

Observations of Runs in 1849.

Time of Observation, 1849.	Excess of micrometer-reading for <i>preceding</i> division above micrometer-reading for <i>following</i> division, for each microscope.						Corr. for Runs for 5'.	Temperature.	Time of Observation, 1849.	Excess of micrometer-reading for <i>preceding</i> division above micrometer-reading for <i>following</i> division, for each microscope.						Corr. for Runs for 5'.	Temperature.
	A	B	C	D	E	F				A	B	C	D	E	F		
Jan. 23. ^{h.} 2	+0,5	+4,6	-0,9	+0,7	+1,3	-0,6	+5,6	0	July 31. ^{h.} 1	+0,8	+4,6	-2,4	-0,3	-0,9	+2,3	+4,1	0
2	+1,4	+4,8	-1,0	+0,4	+0,8	-1,1	+5,3	49	1	+0,5	+4,5	-3,3	+0,4	-0,7	+3,3	+4,7	63
Feb. 6. 1	+0,1	+4,3	-0,2	+1,3	+0,4	-0,6	+5,3	47	Aug. 6. 1	+1,0	+4,1	-3,0	+0,2	-0,2	+2,6	+4,7	61
1	0,0	+4,9	-0,7	+0,3	-0,3	-0,5	+3,7		1	-0,1	+3,6	-3,1	+0,4	0,0	+2,7	+3,5	
25. 21	-0,1	+4,3	-0,7	+0,5	+1,2	-0,7	+4,5	42	15. 22	0,0	+4,7	-3,5	+1,1	-1,2	+3,0	+4,1	61
21	0,0	+4,8	-0,3	+1,0	-0,8	-0,8	+3,9		22. 23	-0,2	+3,4	-2,4	+1,0	-0,5	+1,9	+3,2	64
Mar. 3. 1	+0,3	+4,9	-2,6	+0,8	+0,3	+1,4	+5,1	45	24. 1	+0,2	+3,6	-1,8	+0,3	-1,6	+1,6	+2,3	65
12. 23	0,0	+4,9	-1,9	+1,5	+0,3	+1,0	+5,8	48	Sept. 4. 22	+0,4	+4,1	-2,8	+0,3	-0,5	+2,6	+4,1	
23	+0,3	+4,5	-3,3	+1,2	+0,6	+2,2	+5,5		22	-0,1	+4,3	-3,3	+0,3	-0,1	+2,4	+3,5	
20. 1	+0,3	+4,1	-2,0	+0,8	-0,5	+2,3	+5,0	46	24. 1	-0,4	+4,6	-3,2	+0,2	-1,0	+2,2	+2,4	58
1	+1,1	+4,1	-3,0	+0,8	+0,3	+1,3	+5,1		1	-0,7	+4,2	-2,9	+0,9	-0,7	+3,0	+3,8	
27. 2	+1,3	+5,7	-2,8	+1,9	-1,3	+3,5	+8,3	41	Oct. 1. 2	+0,6	+5,3	-3,1	+0,3	-0,6	+2,2	+4,7	54
Apr. 3. 3	0,0	+4,1	-2,5	+1,0	+0,1	+5,1	+5,8	47	2	+0,7	+4,2	-2,0	+0,1	+1,1	+2,5	+6,6	
6	+0,4	+4,5	-2,2	+0,2	+0,3	+2,2	+5,4	47	15. 2	+0,5	+4,5	-3,0	+1,1	+0,9	+2,5	+6,5	46
4. 1	+0,9	+4,7	-3,3	+1,7	+0,9	+3,0	+7,9		2	+1,2	+3,9	-1,9	+1,3	-0,7	+2,4	+6,2	
16. 2	+1,6	+5,0	-2,8	+1,3	-0,4	+3,4	+8,1	43	29. 2	+0,6	+5,6	-2,4	+1,1	0,0	+2,8	+7,7	54
2	+0,4	+4,0	-3,3	+1,1	+1,4	+3,1	+6,7		2	+0,6	+4,1	-2,1	+0,8	-0,1	+3,6	+6,9	
23. 2	+1,0	+4,7	-2,9	+1,3	-0,2	+2,7	+6,8		Nov. 7. 1	+1,0	+5,2	-2,8	+1,0	-0,3	+2,3	+6,4	42
May 11. 1	+0,7	+4,7	-2,5	+0,8	+1,4	+3,9	+9,0	47	19. 2	+1,1	+4,6	-3,0	+1,3	+0,8	+3,1	+7,9	47
1	+1,1	+3,7	-3,4	+0,2	+0,1	+2,7	+4,4		2	+1,7	+4,2	-3,2	+0,9	+0,5	+2,9	+7,0	
14. 1	+1,2	+5,3	-2,8	+1,0	+1,9	+3,2	+9,8	53	26. 22	+2,1	+5,0	-2,2	+1,3	+0,1	+2,9	+9,7	
1	+0,8	+3,3	-2,7	+1,6	-0,3	+2,8	+5,5		22	+1,5	+5,2	-2,2	+1,3	-0,1	+1,8	+7,5	
29. 1	+1,0	+4,8	-3,3	-0,2	+0,3	+2,1	+4,7	59	Dec. 4. 23	+2,2	+4,9	-1,9	+1,9	+1,4	+4,8	+13,3	
29. 1	-0,3	+4,5	-3,2	+0,3	-0,6	+1,9	+2,6		20. 22	+1,5	+5,6	-2,2	+1,9	+0,1	+2,9	+9,8	34
June 5. 2	0,0	+3,9	-3,3	+1,3	+0,2	+3,1	+5,2	50	22	+1,4	+4,9	-2,0	+0,5	+0,7	+2,9	+8,4	
11. 2	+0,2	+4,5	-3,0	+0,9	0,0	+1,4	+4,0	55	24. 7	+1,7	+5,2	-1,7	+1,4	+0,7	+3,2	+10,5	36
July 12. 2	+0,3	+5,0	-2,7	+1,0	+0,8	+2,8	+7,2	67	31. 1	+1,1	+5,1	-1,8	+1,7	+0,9	+4,1	+11,1	35
2	0,0	+3,7	-2,9	-0,3	-0,7	+1,4	+1,2		1	+1,0	+5,0	-3,0	+1,7	+1,0	+3,4	+9,1	
2	+0,8	+3,4	-3,3	+0,2	-0,9	+2,3	+2,5										
24. 1	+1,0	+4,1	-2,5	+0,2	+0,5	+2,2	+5,5	58									
1	-0,3	+3,9	-3,4	+0,5	-0,6	+3,1	+3,2										

The correction for Runs was ascertained at each determination of the zenith point, the Telescope being directed to the Nadir, and the value so found is employed in calculating the zenith point. The Runs were also frequently taken about the same time after placing the Telescope in an arbitrary position. In all cases in which the Runs were taken twice on the same day, the mean between the two results is used in the reduction of the observations, excepting that $+5''.3$ was inadvertently used on Jan. 15—30 instead of $+5''.5$. The Runs adopted on Jan. 2 and 5, were obtained on Dec. 20, 1848. The first determination of April 3, made by myself after the measures for finding the value of one revolution of the Telescope micrometer, is only employed in calculating that value; and the second of May 14 was not required for reducing the observations. In general the adopted correction is used about as long before as after the date of its determination.

The readings of the micrometer for bisections of the objects named in the second column are put in the *tenth column*, unless the reading be $10'.000$, which answers to the reference position of the micrometer-wire.

The amount of correction for reducing an observation to the reference position of the micrometer-wire, is the difference between the recorded micrometer-reading and $10'.000$, converted into arc by multiplying by $20''.862$, which is the arc corresponding to one revolution of the micrometer-head. The correction is positive or negative, according as the micrometer-reading is less or greater than $10'.000$.

April 3, 5^h—6^h, I observed as follows for determining the value of one revolution of the Telescope micrometer. The mark was beautifully steady and distinct, and the bisections were satisfactory, but the atmospheric refraction was apparently changing. The Temperature by the In-door Thermometer on the Pier was $47^{\circ}.3$, and by the Out-door Thermometer $46^{\circ}.7$.

Micrometer reading.	Pointer reading.	Microscope A	B	C	D	E	F	Correction for Runs.	Concluded Circle reading.	Difference.	Mean of consecutive differences.
- 15	88. 30	1. 45,3	44,5	44,2	52,8	45,6	46,1	+ 1,9	88. 31. 46,73	" "	" "
+ 15	88. 40	2. 9,5	7,7	9,8	16,5	8,5	9,6	+ 2,3	88. 42. 10,65	10. 23,92	
- 15	88. 30	1. 43,3	42,0	41,4	49,6	41,9	43,2	+ 1,9	88. 31. 43,88	10. 26,77	10. 25,35
+ 15	88. 40	2. 8,4	6,5	7,6	14,0	6,8	8,1	+ 2,3	88. 42. 8,95	10. 25,07	10. 25,92
- 15	88. 30	1. 40,8	40,4	39,5	47,8	39,4	41,5	+ 1,8	88. 31. 41,87	10. 27,08	10. 26,07
+ 15	88. 40	2. 6,2	4,7	6,3	11,7	5,3	5,6	+ 2,3	88. 42. 7,02	10. 25,15	10. 26,11
- 15	88. 30	1. 39,0	38,5	37,6	46,0	38,4	39,0	+ 1,8	88. 31. 40,05	10. 26,97	10. 26,97

The correction for Runs found immediately after taking the above measures was $+5''.4$. The above differences of the concluded circle readings, being alternately greater and less than the mean of all, exhibit the effect of variable terrestrial refraction. This effect is very nearly eliminated in the differences obtained in the last column, the mean of which gives $10'.25''.90$ for the value of $30'$. Hence $1' = 20''.862$, which is adopted.

When an observation is not made at or very near the middle wire the distance of the place of bisection from the middle wire is stated in the *eleventh column* in whole intervals and parts of an interval between consecutive wires, the negative or positive sign being affixed according as the bisection was made before or after passing the middle wire. The times, as shewn by the Circle Clock Molyneux (M), of the bisection of Polaris or δ Ursæ Minoris, are inserted in the second column after the name of the star, and the difference between Molyneux and the Transit clock Hardy (H), is given in the notes at the bottom of the page.

To reduce an observation of a star to what it would have been if taken at the middle wire, a correction is required for curvature of diurnal path. This correction is calculated as follows. For Polaris or δ Ursæ Minoris, the time by Molyneux is converted into time by Hardy, and thence the true sidereal time is inferred from the error of Hardy given by the transit observations. The correction is then immediately deduced from the difference of this time and the time of meridian passage given in the Nautical Almanac, by means of Table III at the end of this Introduction. For other stars the correction is derived by interpolation from Table IV, which has been calculated by a known formula, according to which the correction for a given distance from the middle wire varies as the tangent of declination, and for a given declination, varies as the square of the distance. When the declination is 45° , the correction for one interval from the middle wire, which is traversed by an equatorial star in $16^s.6$, is $0''.1503$. Since in looking directly at an object between the pole and the equator the telescope is turned by reason of the curvature of path too far in the direction in which the graduation proceeds, the microscope readings are too small, and the correction is consequently positive. The contrary is the case below the equator and below the pole. In a reflection observation the error of position of the Telescope is in the opposite direction, and the sign of the correction is always contrary to that for the direct observation.

The formula for the calculation of corrections for curvature of path in the case of stars near the pole is,

$$\text{Correction} = [5,31445] \sin 2\Delta \sin^2 \frac{15t}{2},$$

Δ being the star's declination, and t the interval of the observation from meridian transit. The declination of Polaris being $88^\circ.29' + n''$, and that of δ Ursæ Minoris $86^\circ.35' + n''$, the formulæ used for the calculation of Table III are,

$$\text{Correction for Polaris} = [4,03802] \sin^2 \frac{15t}{2} - [0,30042] \sin^2 \frac{15t}{2} \times n,$$

$$\text{Correction for } \delta \text{ Ursæ Minoris} = [4,38991] \sin^2 \frac{15t}{2} - [0,29793] \sin^2 \frac{15t}{2} \times n.$$

The additional correction for change of N.P.D., required in observations of the moving bodies, when they are not taken on or near the meridian, has been calculated for the recently discovered Planets, by inferring the change in the interval between the time of observation and the passage across the middle wire, from the horary variation of N.P.D., known either from a working Ephemeris, or from the current observations. The computation of the correction is facilitated by the use of Table V at the end of this Introduction, which contains the values of the quantity,

$$\frac{16,6}{3600} \times \sec. \text{Decl}^n. \times \text{horary variation of Decl}^n.,$$

for declinations in integral degrees from 0° to 40° , and for horary variations in integral seconds from $1''$ to $10''$. As the corrections for the horary variations $0''.1$, $0''.2$, $0''.3$, &c., $20''$, $30''$, $40''$, &c. are obtained by merely changing the place of the decimal point, the Table gives the means of calculating by simple addition the corrections in any case for changes of N.P.D. in one interval from the middle wire. The amount of the correction required by the observation may then be deduced by multiplying the value for one interval by the number of intervals stated in the eleventh column.

The sign of the correction is determined from the circumstance that when the N.P.D. of the moving body is increasing, the Telescope is pointed for bisecting it too far in the direction of the Circle's graduation before it passes the middle wire, and after passage

too far in the opposite direction. The microscope readings require a *plus* correction in the former case, and a *minus* correction in the latter. If the N.P.D. is decreasing, the signs of the corrections are the contrary.

The *Pointer*, which is used for setting the Telescope to observe an object either directly or by reflection, a working catalogue of setting angles to the nearest minute being previously computed, is placed *below* microscope *A* at an interval of $10^{\circ}.45'$ nearly from the zero of its reading. The graduation proceeding in the direction from the microscope downwards, the pointer reading, (which is taken by sight), is the degrees and minutes of that division which in the order of graduation comes next before the position of the pointer. It has been thought unnecessary to place the pointer reading in a separate column, as it may be at once inferred from the concluded circle reading, the minutes being always an integral number of $5'$. As first set down, it is sometimes erroneous by a multiple of $5'$, but as the error is readily detected in the computations, no notice is taken of it in the notes.

The concluded circle reading in the *twelfth column* is the Pointer reading added to the mean of the microscope readings with all the above corrections applied. It is, therefore, the reading which would have been given by the circle, if the microscopes had been in accurate adjustment for runs, and the object had been bisected by the fixed wire at the middle vertical wire. For Polaris or δ Ursæ Minoris, the concluded reading applies to the time of meridian passage. If the circle were perfectly graduated, and always retained the circular form, and if the bisections of the divisions were accurately performed, different circle readings obtained in the manner just stated, would be comparable with each other though determined by a single microscope, provided also the zero of the microscope reading retained a fixed position relatively to the axis of the circle. Errors from imperfect graduation, inaccurate bisections, and deviation from the circular form, may be presumed to be corrected in great measure by the use of six microscopes, disposed at the opposite ends of diameters, and at equal intervals round the circle. It appears, however, that there is a residual inequality, which will be presently noticed.

The circle reading corresponding to the position of the Telescope when directed exactly to the zenith is called the *Zenith Point*. The adopted zenith point throughout the year 1849 was obtained by the collimating eye-piece used in the manner explained in page iii. The micrometer reading for coincidence of the micrometer wire with its image was first deduced from at least six readings for coincidence, or for alternate contact, and the concluded circle reading for the zenith direction was calculated, just as if the image had been a celestial object in the zenith observed by reflection. The zenith point is generally taken in this manner once a week, and the result is used from the third or fourth day previous.

The microscope readings for the determination of the zenith point are inserted among those for the observations of the celestial objects named in the second column. For greater accuracy the microscopes were read twice, but the mean of the two sets of readings is alone inserted. The concluded circle reading obtained by reducing an observation of zenith point in the same manner as the other observations are reduced, when increased by 180° is in general the adopted zenith point. The limits within which any value is used are indicated by bars across the column of "concluded circle readings." If two observations of zenith point occur within the same limits, the value used is the mean between the two results.

The following is a list of the seconds of all the zenith points taken in 1849, with the approximate mean times at which they were taken. The degrees and minutes were $291^{\circ}.39'$ to the end of February, and $358^{\circ}.42'$ subsequently, the Telescope having been shifted on the limb of the circle on March 1. On that and the following day the Circle was taken from the wall to clean its axis, the microscopes

were adjusted, and the micrometer-wire was placed so as to be traversed by an equatorial star. Also on Aug. 22 the axis was cleaned and the microscopes were adjusted. By inadvertence these notices are omitted in the Notes.

Zenith Points obtained in 1849 with the Collimating Eye-piece.

Time of Observation.	Seconds of Zenith Point.	Time of Observation.	Seconds of Zenith Point.	Time of Observation.	Seconds of Zenith Point.
Jan. 23. ^h 2	41,76	May 14. ^h 1	30,02	Sept. 4. ^h 22	21,36
Feb. 6. 1	41,80	29	29,39	24. 1	21,19
16. 21	42,55	June 5. 2	29,65	Oct. 1. 2	22,41
25. 21	42,58	11. 2	30,62	15. 2	20,53
Mar. 3. 1	28,25	July 12. 2	30,80	29. 2	20,71
12. 23	28,17	24. 1	31,10	Nov. 7. 1	21,64
20. 1	28,81	31. 1	30,84	19. 2	19,75
27. 2	28,45	Aug. 6. 1	31,28	26. 22	20,38
Apr. 3. 3	28,58	15. 22	31,74	Dec. 4. 23	20,60
4. 1	28,89	23. 0	21,72	20. 22	18,70
16. 2	29,49	23. 1	21,51	24. 7	19,07
23. 2	28,94	24. 1	22,16	31. 1	19,05
May 11. 1	30,19	Sept. 4. 22	21,81		

The zenith point used on Jan. 2 and 5 is that obtained on Dec. 20, 1848. Those taken on April 3, May 14, Aug. 23 and Dec. 24, were not required in the reduction of the observations. Between June 14 and July 11 Circle observations were suspended. The mean of the two zenith points obtained on Sept. 4 by different observers is used from Sept. 4 to Sept. 12. It may be remarked that values obtained by different observers at nearly the same time exhibit a satisfactory accordance: also that there is a tendency to a maximum of value at the hottest part of the year.

The apparent zenith distance, in the direct observation of any object, is the algebraic excess of the concluded circle reading above the adopted zenith point, and for a reflection observation it is the algebraic excess of the nadir point above the concluded circle reading. The object is North or South of the zenith according as the excess is in either case positive or negative. The apparent zenith distance thus obtained is used with the data in the three next columns for the calculation of *refraction*.

The *thirteenth column* has the height of the barometer as shewn by a cistern-barometer constructed by Dollond, and attached to the circle pier. The lower surface of the mercury is raised by a screw pressing the bag till the light seen below a brass edge is excluded; and a brass slider is brought to the upper surface to shut out the light in the same way. As it appeared by a comparison of this with six other barometers (the particulars of which are given in the volume for 1835, p. xxxi) that its readings were too small by 0,1 inch nearly, the height immediately read from the barometer, which is that recorded in the thirteenth column, is always increased by that quantity in calculating the refraction.

The *fourteenth column* has the reading of the thermometer whose bulb is plunged in the cistern of the barometer.

The *fifteenth column* contains the reading of an external thermometer, which is fixed to a stage near the north shutter-opening at a distance of four feet from the wall of the building and nine feet from the ground. It is protected from radiation and the weather, and contiguous parts of the building prevent the direct rays of the Sun falling upon it.

The refraction is calculated by Bessel's tables, (*Tabulæ Regiomontanæ*, p. 538, &c.) by making use of the Appendix to the *Greenwich Observations* of 1836. In this mode of calculating the reading of the attached is supposed to be the same as that of the external thermometer. The former reading, though not made use of, is inserted in the printed columns, to allow of correcting, if thought necessary, for the error of this supposition.

By adding the refraction to the apparent zenith distance North or South, the true zenith distance is found, and by adding algebraically the true zenith distance, considered negative when north of the zenith, to the assumed co-latitude of the observatory, viz. $37^{\circ}.47'.8''.00$, the Apparent N.P.D. from the observation, given in the *fifteenth column*, is obtained. The result is, therefore, the North Polar Distance of the object named in column 2, at the time of its passing the middle wire, affected, in the case of a body of the Solar System, by *parallax*, and in every case, affected by uncorrected instrumental errors and errors of observation, as also by any errors in the assumed values of the constants employed in the calculations.

The *last column* contains the initial of the observer's name. The letter C indicates that the observation was taken by myself, the Italic *C* that it was taken by Mr Carrington, and the letters B and T indicate that the observations were taken respectively by Mr Breen and Mr Todd.

IV. *Mean North Polar Distances, Jan. 1, 1849, of Stars, as deduced from the observations of each day.*

The columns in pages 84—96 contain the names of the stars in order of Right Ascension, the days on which each star was observed, the corrections to be applied to the apparent N.P.D. already calculated, to obtain the mean N.P.D., and the resulting mean N.P.D. Jan. 1, 1849, given by each day's observation. The results by the same star, when observed above, and when below the pole, are arranged separately to serve for correcting the assumed co-latitude. Also, the results by direct observations are separated from those by reflection observations of the same star, for the purpose of exhibiting the effect of the discordance of zenith points spoken of hereafter, and furnishing data for applying a correction.

The corrections applied to the apparent N.P.D. are obtained as follows. For stars included in the list of the Nautical Almanac, the corrections are the algebraic excesses of the apparent above the mean declinations of that work, South declinations being considered negative. For stars not in the Nautical Almanac, but included in the Catalogue of the British Association, the correction $\delta\Delta$ is calculated by the formula

$$-\delta\Delta = Aa' + Bb' + Cc' + Dd'.$$

$\log A$, $\log B$, $\log C$, $\log D$, being taken from the Nautical Almanac, and $\log a'$, $\log b'$, $\log c'$, $\log d'$, from the Catalogue. For stars not in that Catalogue, the corrections are calculated by the following formula, depending on the expressions for a' , b' , c' , d' , given in p. xvii of the Preface to the Catalogue of the Royal Astronomical Society.

$$\begin{aligned} \text{Correction} = & A \times (\text{No. log} = 9,6375) \times \sin \text{N.P.D.} - A \sin \text{R.A.} \cos \text{N.P.D.} \\ & + B \cos \text{R.A.} \cos \text{N.P.D.} + C \times (\text{No. log} = 1,3020^*) \times \cos \text{R.A.} - D \sin \text{R.A.} \end{aligned}$$

A Catalogue of the concluded Mean R.A. and concluded Mean N.P.D. Jan. 1, 1849, of the Stars observed in 1849, with the Annual Variations, is given in pages 98—115. The concluded mean R.A. is the mean of all the separate R.A. in pages 42—60, and the concluded mean N.P.D. is the mean of the separate N.P.D. contained in pages 84—96, corrected for the discordance of zenith points and for the error of the assumed co-latitude, in the manner about to be explained. The results in brackets are not taken into account in calculating the concluded mean. When a star has been observed only with the Transit, its approximate N.P.D. to the nearest minute is placed in the column of concluded N.P.D.,

* The value of this constant for 1849 is more correctly 1,3022.

and when observed only with the Circle, the approximate R.A. to the nearest second is placed in the column of concluded R.A.

The *Annual Variations* in R.A. and N.P.D. are either taken from the Nautical Almanac, or are computed by the following formulæ, the constants of which are derived from p. x of the *Tabulæ Regiomontanæ*:

$$\text{Annual Variation in R.A.} = 3.0706 + [0.12613] \sin \text{R.A.} \cotan \text{N.P.D.}$$

$$\text{Annual Variation in N.P.D.} = -[1.30222] \cos \text{R.A.}$$

Proper motions are not taken into account unless they are included in the Annual Variations adopted from the Nautical Almanac.

The column of 'observed magnitudes' contains the means of estimations of magnitude made at the separate observations, whether with one or with both instruments, as often as the observers recorded them. Several of these estimations appear to have been affected by atmospheric circumstances. In case the star is not in Catalogues, and the magnitude was not noted at any of the observations, the magnitude as derived from observations of former years, or from equatorial observations made expressly for the purpose, is put in the column containing the names of the stars. This is done to facilitate the identifying of these stars.

When the star is double, the component to which the concluded R.A. and N.P.D. apply is indicated by the letters *np*, *nf*, *sp*, *sf*, in their usual signification. It is presumed, if the observer has not noted which star was taken, and the components are known to be far enough apart to be seen distinctly in the Transit and Circle Telescopes, that the selection has been made according to the rule in p. i. Also if the star has not been distinguished as double, and one of the components is known to be much brighter than the other, the observations are considered to apply to the brighter. In several instances of very close components of nearly equal magnitude, no letters are affixed, and the R.A. and N.P.D. are supposed to apply to the middle point between them.

The 'Notes' in the last column contain incidental remarks, chiefly relating to the identifying of the stars and estimations of magnitude, and to the rectification of errors in Catalogues.

The correction for the error of the assumed co-latitude, is derived from a determination of the co-latitude of the Observatory, calculated from all the observations of the same stars above and below pole which were made in the years 1836, 1837, and 1838. The calculation is given in pages liii—lviii of the Introduction to the Volume of 1838, and the result is, that the assumed co-latitude $37^{\circ}.47'.8''.00$ should be corrected by $+0''.37$. This quantity is accordingly added algebraically to the mean N.P.D., considering them negative when the stars are observed below the pole.

The correction for discordance of zenith points is applied on the following principle. When the mean between the two concluded circle readings for the reflection and direct observations of the same star at the same transit, is increased or diminished by 90° , the result is the zenith point given by those observations. On comparing zenith points thus obtained by stars of different N.P.D., the values are found to be slightly discordant: on which account the observation of stars by reflection has been continued at the same time with the use of the collimating eye-piece, for the purpose of obtaining data for applying corrections. The discordance is of such a nature, that the circle reading for zenith point is in general less by a star observed south of the zenith than by a star observed north of the zenith. Apparently when the object-glass is to the south of zenith, the Telescope, whether directed to the heavens or the trough of mercury, requires to be turned for bisecting an object, a little farther in the direction of the graduation, than

if the cause of inequality did not exist; and when the object-glass is to the north of zenith, a little in the contrary direction. Whatever may be the cause of the discordance, the error it produces may be presumed to be corrected by reducing the different zenith points to the zenith point corresponding to a *given* zenith distance. The collimating eye-piece gives correctly the zenith point corresponding to the zenith direction. Hence, if M be the adopted zenith point employed in the calculation of the apparent N.P.D., and Z the zenith point resulting from a particular double observation south of zenith, $M-Z$ is the error of the circle reading in defect, both for the reflexion and the direct observation, supposing both to be equally affected by the inequality. By this quantity the N.P.D. is too small as determined by the direct observation, and too great as determined by the reflection observation; so that the algebraic excess of the latter determination above the other is twice $M-Z$. This rule applies to observations north of the zenith, by taking the N.P.D. negative when the star is observed below the pole. The following table exhibits for each star observed directly, and by reflection, the mean value of $M-Z$, derived from the lists in pages 84—96 by halving the algebraic excess of the mean of the N.P.D. by reflection above the mean of the corresponding N.P.D. by direct vision.

Mean Excess for each Star of the adopted Zenith Point above the Zenith Points given by observation in 1849.

Star.	Zen. Dist. South.	No. of Obs.	Mean value of $M-Z$.	Star.	Zen. Dist. South.	No. of Obs.	Mean value of $M-Z$.
Polaris SP.....	-39.17	1	-0.80	α Andromedæ.....	+23.59	1	-0.18
Polaris.....	-36.17	1	-1.58	ϵ Bootis.....	+24.30	1	+0.87
α Ursæ Majoris....	-20.21	1	-2.24	α Arietis.....	+29.28	1	+2.05
ρ Draconis.....	-15.14	1	-0.47	ζ Geminorum.....	+31.26	1	+2.01
π Draconis.....	-13.12	1	-1.44	β Arietis.....	+32.9	2	-1.00
ι Cephei.....	-13.11	1	-1.87	Arcturus.....	+32.15	2	+1.29
α Draconis.....	-12.53	1	-0.48	θ Leonis.....	+35.58	1	-0.21
σ Ursæ Majoris....	-9.0	2	-1.08	Aldebaran.....	+36.1	1	+0.81
ζ Cephei.....	-5.15	1	-0.64	ϵ Aquilæ.....	+37.21	1	-0.23
ξ Draconis.....	-4.41	1	-1.10	α Herculis.....	+37.39	1	+0.34
η Ursæ Majoris....	+2.9	2	+0.85	α Pegasi.....	+37.49	1	-1.57
α Cygni.....	+7.28	1	+0.47	ζ Aquilæ.....	+38.34	1	-0.61
ρ Herculis.....	+14.56	1	+0.47	ζ Pegasi.....	+42.10	1	+0.12
β Lyrae.....	+19.2	1	+1.28	β Cancri.....	+42.34	1	+0.14
γ Lyrae.....	+19.44	1	+1.99	72 Ophiuchi.....	+42.40	2	+0.98
ζ Persei.....	+20.47	1	-0.10	ϵ Piscium.....	+45.8	1	+1.01
ϵ Herculis.....	+21.4	2	+1.56	β Aquilæ.....	+46.11	1	+0.06
δ Andromedæ.....	+22.11	2	+0.50	δ Hydræ.....	+45.59	1	+1.73
ζ Cygni.....	+22.36	1	+1.13	δ Ophiuchi.....	+55.31	1	+0.36
η Pegasi.....	+22.47	3	-0.08	κ Virginis.....	+61.47	1	+1.37
β Tauri.....	+23.45	1	+0.84	β Ceti.....	+71.3	3	+0.21
Pollux.....	+23.50	3	+1.03				

From the foregoing table the corrections to be applied to N.P.D. observed directly were deduced as follows. The above mean values of $M-Z$ were divided into groups the limits of which (indicated by the lines across) were chosen so that the stars of each group do not greatly differ in zenith distance. Each mean value in the group was multiplied by the number of observations by which it was determined, and the corresponding zenith distance by the same number. The sum of each series of products being divided by the whole number of observations in the group, the resulting value of $M-Z$ was considered to belong to the resulting zenith distance. A line of abscissæ was then

drawn on which these zenith distances were set off, and the corresponding values of $M-Z$ being taken for ordinates, a curve was traced by hand among the points thus laid down; so as to approach nearer to any point, the greater the number of observations by which its position was determined. Ordinates of this curve were then measured at intervals of 5° , and the measures with the corresponding N.P.D. were tabulated, to serve for obtaining by interpolation the correction for any proposed N.P.D. From what has already been said, the sign of the correction for a direct observation is the same as that of $M-Z$, or the ordinate of the curve, and for a reflexion observation, the contrary sign. In the subjoined table the correction $+0''.37$ for error of assumed co-latitude is included.

Corrections for Discordance of Zenith Points and Error of the assumed Co-latitude, applied to N.P.D. obtained by direct and reflection observations in 1849.

N.P.D.	Correction to direct observation.	Correction to reflection observation.	N.P.D.	Correction to direct observation.	Correction to reflection observation.	N.P.D.	Correction to direct observation.	Correction to reflection observation.
0	"	"	40	$+0.15$	$+0.59$	85	$+0.81$	-0.07
$-1\frac{1}{2}$	-0.80	$+1.50$	45	$+0.67$	$+0.07$	90	$+1.04$	-0.30
0	-0.83	$+1.57$	50	$+1.02$	-0.28	95	$+1.17$	-0.43
$+5$	-0.89	$+1.63$	55	$+1.17$	-0.43	100	$+1.23$	-0.49
10	-0.95	$+1.69$	60	$+1.17$	-0.43	105	$+1.26$	-0.52
15	-0.98	$+1.72$	65	$+0.99$	-0.25	110	$+1.26$	-0.52
20	-0.96	$+1.70$	70	$+0.53$	$+0.21$	115	$+1.24$	-0.50
25	-0.87	$+1.61$	75	$+0.31$	$+0.43$	120	$+1.22$	-0.48
30	-0.68	$+1.42$	80	$+0.42$	$+0.32$			
35	-0.28	$+1.02$						

The observations from which the above Table was formed are perhaps hardly sufficient in number: the law and the amount of discordance are, however, nearly the same as in former years. The zenith direction as given by the collimating eye-piece is apparently $+0''.41$ more *southward* than the direction as given by reflection observations of stars.

V. *Approximate R.A. and N.P.D. of Zodiacal Stars observed with the Mural Circle*

Pages 118—134.

This series of observations was undertaken with the view of forming as complete a Catalogue as possible of the stars to the ninth magnitude inclusive, contained within a zone extending 5° on each side of the ecliptic, and to determine their places with a sufficient degree of accuracy for use in equatorial observations of the Minor Planets. It was, however, found after a trial of above two months that the Mural Circle could not be depended upon for accurate determinations of Right Ascensions even through a small arc of the meridian, apparently on account of displacements by clamping for the observations of N.P.D., and in part probably from the form of the pivot. This kind of observation, which requires the use of a Transit Circle, was consequently abandoned, and a working list of Zodiacal Stars included within the above-mentioned zone, was formed from the Catalogue of the British Association, Weisse's Reduction of Bessel's Zones, and Baily's Reduction of the *Histoire Céleste*, to be observed with both instruments. A large proportion of the objects observed on the meridian in 1849 consists of stars of this list. It was, however, thought worth while to reduce and publish the zone observations taken with the Mural Circle, as they embrace a considerable number of stars not in Catalogues, and give places which, though not uniformly accurate, are always approximately true. The following is an account of the reduction of these observations.

The intervals between the vertical wires were calculated from eight complete transits of Polaris SP taken from March 29 to June 4, from which the following Table of the intervals of the wires from the mean of all was formed:

	Equatorial Interval.	Polaris. Decl ⁿ . = $86^{\circ}.30' + n''$.
<i>a</i>	-32,824	-20.55,67 - 0,233 <i>n</i>
<i>b</i>	-16,441	-10.28,27 - 0,116 <i>n</i>
<i>c</i>	-0,089	-3,41 - 0,001 <i>n</i>
<i>d</i>	+16,468	+10.29,31 + 0,117 <i>n</i>
<i>e</i>	+32,886	+20.58,04 + 0,234 <i>n</i>

Stars above the pole cross the wires in the order *abcde*. By means of this Table imperfect transits were reduced to the mean of the five wires in the usual manner.

The collimation, level, and azimuth errors were first obtained roughly as follows. For the calculation of level error the transit of Polaris observed directly at the second wire on March 30, was compared with the transit observed by reflection at the same wire on March 31. If t_1 = the first time, t_2 = the second, δ = the star's N.P.D., and L = the latitude of the Observatory, then by a known formula,

$$\text{Correction for level error} = + \frac{15}{2} (t_2 - t_1) \sin \delta \operatorname{cosec} (L + \delta).$$

By calculation from this formula it was found that the East end of the axis was too high by $10''.4$.

To find the collimation error of the middle wire, the Telescope was directed to the Nadir and the image of the wire was seen by reflection at the surface of mercury. There being no micrometer wire parallel to the middle wire, the interval between the middle wire and its image was obtained approximately by making the interval between the micrometer wire and its image to be by estimation the same. The half of this interval was found to be $1''.375$ in micrometer revolutions, which in arc is $28''.7$, the value of one revolution being $20''.86$. As the image of the middle wire was *Westward*, the middle wire deviated from the meridian eastward by $28''.7$: and as the level error caused a deviation westward of $10''.4$, it follows that the wire-frame was too much eastward by $39''.1$.

The azimuth error was calculated from the observations of Polaris SP March 29, and Polaris March 30 and 31 in the usual manner, after correcting for collimation and level errors, and it was found that the west end of the axis was too much northward by $27''.4$.

On April 3 an attempt was made to correct the level and azimuth errors by turning the screws of the West pivot, and then to correct the collimation error by shifting the wire-frame so as to make the middle wire and its image coincide. But partly from a mistake in the calculation of azimuth error, and partly from uncertainty as to the amount of correction produced by turning the screws, the desired corrections were not effected, as appeared by the subsequent reduction of the observations, and in consequence the instrumental errors remained of large amount during the whole of the series.

The following instrumental errors were determined from observations made after the adjustments on April 3. By comparing the direct transit of Polaris SP on April 3 with the reflection transit on April 7, allowance being made for the rate of the clock (Molyneux) and the change of the star's R.A., the level error was found by the foregoing formula to be $+18''.74$. A like comparison of the direct transit of Polaris SP on April 5 (reduced to the mean of the wires) with the reflection transit of April 7, gives $+19''.12$. Taking the mean of these values, viz. $+18''.93$, for level error, since the middle wire and its image were placed in coincidence on April 3, the collimation error of the middle wire from that date is $-18''.93$. As the mean of the wires is more eastward by $1''.34$ than the middle wire, the concluded collimation error, inclusive of $-0''.18$ for diurnal aberration, is $20''.5$.

The level errors given by the direct and reflection transits of Polaris April 26 and 29, those of Polaris SP May 29, May 31, and June 1, and those of Polaris SP June 2 and 4, are respectively $+17''.9$, $+20''.1$, and $+17''.7$. Making use of the several determinations of level error, and assuming the collimation error to be $-20''.5$ throughout, the following are the values of the azimuth error found by the usual processes.

Days of Observation.	Stars employed.	Azimuth Error.	Days of Observation.	Stars employed.	Azimuth Error.
April 3 ...	Polaris SP and Spica	... -43,4	May 15 ...	Polaris SP and Spica	... -43,5
5 ...	_____	... -44,3	15 and 16 ...	Polaris SP and Polaris	... -42,9
7 ...	_____	... -43,9	29 ...	Polaris SP and Spica	... -41,6
26 ...	_____	... -42,3	June 1 and 2 ...	{ Polaris SP, Polaris and Polaris SP }	... -43,4
26 ...	Polaris SP and Polaris	... -43,8			
May 3 and 4 ...	{ Polaris, Polaris SP, and Polaris }	... -41,7			

The foregoing discussion of the instrumental errors shews that the circle was sufficiently steady during the whole series of observations. It was, however, found that the values thus obtained for errors of collimation, level and azimuth did not give accordant clock-errors of the fundamental stars, and it was impossible to say whether the discordances were due to the form of the East pivot, or the strain on the instrument caused by clamping, or to errors of 1^s in counting. On this account it was judged to be most accurate to infer the corrections for reduction to the meridian and clock-error conjointly for the known stars on each day from their known R.A., and to deduce the like corrections for unknown stars by interpolation, the clock's rate being taken into account.

These corrections of the transit-time for the known stars are placed in the ninth column (pages 118—126), and the mean of them on any day (exclusive of those for Polaris) is considered to apply to the mean of the times of observation and the mean of the N.P.D. of the stars. The clock's rate in the tenth column has been always deduced from comparisons of transits of the *same* star on different days, and the hourly correction in the eleventh column is the rate divided by 24, with the negative sign attached because the clock had a gaining rate. This hourly correction, multiplied by the algebraic excess of the time of transit of an unknown star above the time corresponding to the mean correction, gives the quantity to be added to the mean correction to obtain the correction of transit-time for that star, so far as it depends on the clock's rate. The correction depending on N.P.D. was obtained by dividing the clock-stars observed on any day into a northern and a southern group, and finding for each group a mean correction corresponding to a mean time and a mean N.P.D. The two mean corrections were then corrected for clock's rate to the same mean time, and the excess of that for the southern above that for the northern group, being divided by the difference of the two mean N.P.D. in degrees, is the quantity put in the twelfth column. This quantity, multiplied by the algebraic excess in degrees of the N.P.D. of the unknown star above the mean of the N.P.D. of all the known stars, gives the additional quantity to be applied to the mean correction. The correction resulting from the application of the two quantities is the 'Correction of transit-time' in the thirteenth column, which added with its proper sign to the transit-time gives the star's apparent R.A.

Discordant clock-errors frequently occurred in Mr Todd's observations of Spica when followed by observations of Polaris SP, as on May 31 and June 1, 2 and 4. The observation of June 11, which was not preceded by one of Polaris SP, presents no such discordance. It was not possible to decide whether the discordance was due to the sudden change of position of the Circle in passing from the transit of Polaris at wire IV to the transit of Spica at wire V, the interval being only 47^s, or to an error of 1^s in counting caused by the hurry of the observation. As Mr Todd's transits exhibit many such errors it was thought that the latter is the most probable explanation, and accordingly the observations on the days above-mentioned have been altered.

On several days the clock-errors could not be divided into a northern and a southern group, being either too few in number, or not appropriately distributed. In these instances the time-corrections for difference of N.P.D. (in column 12) are taken from those immediately preceding or following. Thus the corrections adopted on April 14, April 28, May 7, May 23, are the same as those next preceding; that on June 8 is the same as the following one determined on June 9; the value used on April 30 and May 2 is the mean of the results obtained on April 26 and May 3; and on June 11 and 13 the value adopted is the mean between determinations made on the two days. On May 23 κ Virginis is used as a clock-star, its apparent R.A. viz. $14^h.4^m.52^s.75$ being calculated from the Greenwich 12-year Catalogue.

The calculations relating to the observations of the apparent N.P.D. of Zodiacal Stars in pages 127—134 require no explanation, being exactly the same as for the other Circle observations, with the exception that as two microscopes only were used, the zenith points and corrections for Runs were inferred exclusively from readings of those microscopes.

The *Catalogue of the concluded Mean R.A. and concluded Mean N.P.D. of the Zodiacal Stars* in pages 136—142 was formed in the same manner as the general Catalogue, excepting that the result of each observation of the same star stands separately. The column of 'observed magnitudes' contains only such magnitudes as were noted at the time of observation.

VI. *Right Ascensions and North Polar Distances of Planets observed in 1849, with the Greenwich Mean Solar Times of observation.* Pages 144—146.

The *Right Ascensions* were taken immediately from the previous part of the work. The *Geocentric North Polar Distances* were deduced from the observed apparent N.P.D. by applying corrections for parallax, and for the discordance of zenith points with the error of assumed colatitude. The correction for parallax was calculated as follows. If r and D be respectively the lines from the centre of the Earth to the place of observation and object observed, α the angle they make with each other, r' the Earth's equatorial radius, D' the mean distance of the Sun from the Earth, and p the parallax, then $p = \frac{r}{r'} \times \frac{r'}{D} \times \frac{D'}{D} \sin \alpha$. $\log \frac{r}{r'}$ is taken = 9,9990916, which supposes the ratio of the Earth's axes to be that of 297 to 298; $\log \frac{r'}{D} = 0,9333658$, the assumed value of the Sun's equatorial horizontal parallax at the mean distance being $8''.5776$; $\log \frac{D'}{D}$ is the arithmetical complement of log. distance given by theoretical calculation; and α is found by subtracting $11'.12''$, the angle of the vertical corresponding to the above ratio of the axes, from the observed zenith distance.

The *Greenwich Mean Solar Times* were calculated by adding to the equivalent in mean time of the sidereal time of transit, the next preceding mean time of transit of the first point of Aries, diminished by $22^s,69$, the longitude of the Cambridge Observatory being $22^s,75$ East of Greenwich, according to a new determination made in 1853 by Galvanic signals, the particulars of which are published in the Transactions of the Cambridge Philosophical Society, Vol. IX. Part IV.

In all the instances in which Circle observations were not accompanied by Transit observations, the Greenwich Mean Times were deduced from the Tabular R.A., as given by Ephemerides, or obtained by special calculation, corrections being applied for the errors of the Tables in R.A.

The Tabular R.A. and N.P.D., and the Equatorial Horizontal Parallax of Flora were interpolated from Dr Brünnow's Ephemeris in the Monthly Notices of the Royal Astronomical Society, Vol. IX. p. 154.

The Tabular R.A., N.P.D., and Log. distance of Iris were calculated for the respective Greenwich Mean Times, from Schubert's Elements in Vol. XXVIII column 285, of the *Astronomische Nachrichten*. These elements were used at first as applying to the beginning of the year, but the epoch being found to be a day earlier, the mean anomaly was increased by $962''.9$, and the Elements actually employed are the following :

Mean Anomaly 1849,0 Berlin Mean Time	68 . 45 . 13,27	} Mean $\Delta E q^x$. 1849,0.
Longitude of Perihelion	41 . 30 . 7,93	
Longitude of Ascending Node	259 . 45 . 59,17	
Angle of Eccentricity	13 . 22 . 46,31	
Inclination	5 . 28 . 11,36	
Logarithm of Mean distance	0,3777841	
Daily increment of Mean Anomaly	962,34433	

In calculating the corrections for aberration Schubert's Ephemeris in No. 666 of the same work was used for finding the rates of change of R.A. and N.P.D.

The Tabular R.A., N.P.D. and Log. distance of Metis were interpolated from Graham's Ephemeris in Vol. XXIX. No. 684, and Vol. XXX. No. 697, of the *Astronomische Nachrichten*; and those of Hebe from Luther's Ephemeris in Vol. XXVIII. No. 656.

The Tabular R.A., N.P.D. and Log. distance of Astræa were interpolated from the Ephemeris in the *Berliner Jahrbuch* for 1852, p. 385, for the observations in October and November, and for the remainder were calculated from D'Arrest's Elements in Vol. XXX. No. 704 of the *Astronomische Nachrichten*, which are those used for the calculation of the Ephemeris: viz.

Mean Anomaly 1849, Nov. 10,0 Berlin Mean Time	294 . 19 . 42,35
Longitude of Perihelion	135 . 42 . 29,4
Longitude of Ascending Node.....	141 . 27 . 24,7
Angle of Eccentricity.....	10 . 50 . 56,5
Inclination	5 . 19 . 26,8
Logarithm of Mean distance	0,4110398
Daily increment of Mean Anomaly	857'',92023

It being ascertained that the Ephemeris did not include aberration, corrections on that account have been applied to the interpolated R.A. and N.P.D. The aberration corrections for the calculated R.A. and N.P.D. were obtained by first finding from the approximate Ephemeris in p. 384 of the *Berliner Jahrbuch* the rates of change of R.A. and N.P.D. Also from a calculation of the Planet's place for Nov. 27,5 Berlin Mean Time, it appeared that the resulting R.A. and N.P.D. required respectively the corrections +0^s,04 and +0'',51 to make them agree with those of the Ephemeris, owing probably to some difference in the constants employed. These corrections have consequently been applied to our calculated R.A. and N.P.D. to reduce them to uniformity with those of the Ephemeris. The calculated N.P.D. for the Circle observation of Dec. 29 shewed that the object observed was not the Planet.

The Tabular R.A., N.P.D. and Log. distance for Neptune were interpolated from Walker's Ephemeris as given in the *Astronomische Nachrichten*, Vol. XXIX. No. 676.

VII. Occultations of fixed stars by the Moon, and Calculation of the Equations given by the Occultations. Pages 148—161.

The sidereal times of the phænomena were derived from the noted times by means of the comparisons in page 148, and the Greenwich Mean Solar Times were calculated in the manner already stated. For the calculation of the occultations, the geocentric R.A. and N.P.D. of the Moon's centre, the Horizontal Equatorial Parallax, and the Geocentric Semidiameter, were interpolated for the time of observation with second differences from the Nautical Almanac, whence also the assumed R.A. and N.P.D. of the stars were taken. The Moon's apparent R.A., N.P.D., and semidiameter, the apparent distance of the star from the Moon's centre, and the coefficients of small variations, were calculated by the formulæ in the Appendix to the Nautical Almanac for 1854, which are for the most part the same as those given in pages xxxiii and xxxiv of Vol. XIII of the Cambridge Observations. The former take into account any error (ν) of the assumed geocentric colatitude of the Observatory by the following equations:

$$\text{coefficient of } \nu \text{ in } \delta R = \sin \theta \operatorname{cosec} \theta' \cot l \sin (\theta - \theta'),$$

$$\text{coefficient of } \nu \text{ in } \delta \lambda = -R \frac{\sin \theta}{\sin \theta'} \cdot \frac{\sin \lambda}{\sin \lambda'} (\cos \lambda \cos l \cos \theta + \sin \lambda \sin l),$$

in which θ is the apparent hour angle of the Moon's centre, θ' the geocentric hour angle,

λ the apparent N.P.D., λ' the geocentric N.P.D., l the assumed colatitude $37^{\circ}.58'.20''.37$, and F is the sine of the horizontal parallax. The angle of the vertex and the ratio of the distance of the Observatory from the Earth's centre to the Equatorial radius, have been computed on the supposition that the ratio of the latter to the Polar radius is that of 298 to 297.

OBSERVATIONS OF 1850.

The explanation of the printed observations being generally the same for 1850 as for 1849, it will only be necessary to advert here to what is peculiar to the former year, and to give an account of the constants employed in the reduction of the observations.

I. *Apparent Right Ascensions observed with the Transit.* Pages 164—204.

The following Table of intervals of the wires from the mean of all, which was used throughout 1850, was computed from nineteen complete transits of Polaris, six of which were taken in 1849, eleven in 1850, and two in 1851. During these three years the intervals remained steady, and were nearly the same as in 1848.

Wire.	Interval for an Equatorial Star.	Interval for Polaris. Declination = $88^{\circ}.30' + n''$.	Interval for δ Ursæ Minoris. Declination = $86^{\circ}.35' + n''$.
	<i>s.</i>	<i>m.</i> <i>s.</i> <i>s.</i>	<i>m.</i> <i>s.</i> <i>s.</i>
A	- 40,344	- 25 . 44,43 - 0,287 <i>n</i>	- 11 . 17,22 - 0,055 <i>n</i>
B	- 26,892	- 17 . 8,29 - 0,191 <i>n</i>	- 7 . 31,32 - 0,037 <i>n</i>
C	- 13,573	- 8 . 38,63 - 0,096 <i>n</i>	- 3 . 47,76 - 0,019 <i>n</i>
D	- 0,060	- 2,29	- 1,01
E	+ 13,618	+ 8 . 40,34 + 0,096 <i>n</i>	+ 3 . 48,51 + 0,019 <i>n</i>
F	+ 26,913	+ 17 . 9,09 + 0,191 <i>n</i>	+ 7 . 31,67 + 0,037 <i>n</i>
G	+ 40,337	+ 25 . 44,18 + 0,287 <i>n</i>	+ 11 . 17,10 + 0,055 <i>n</i>

The intervals for the Sun and Planets are calculated from the intervals for an Equatorial star, by multiplying by the cosecant of N.P.D. and by the factor $1 + \frac{I}{3600}$, the horary variation (I) of the R.A. being either taken from the Nautical Almanac, or inferred from the R.A. observed on different days. The multiplier for the Moon, which takes account of the variation of R.A. as affected by parallax, is calculated from the expression

$$\frac{3600 + I}{3600} \times \frac{\sin \text{Moon's geocentric Zen. Dist.}}{\sin \text{Moon's apparent Zen. Dist.}} \times \text{cosecant of N.P.D.},$$

where I is the increase of the Moon's R.A. in passing over 1^h of terrestrial longitude, given under the head of Moon-culminating stars in the Nautical Almanac.

Corrections have been applied for the forms of the Transit pivots in the reduction of the observations of 1849 (see p. vii), and in those of former years. But as the methods employed for ascertaining these corrections were imperfect, depending on the use of the Spirit Level only, I adopted in 1850 another method the principle of which is as follows.

The angular position of the straight line joining two points, situated at the ends of the pivots near the axis of motion, and rigidly connected with the instrument, was ascertained for various zenith distances by measures of their vertical and meridional horizontal co-ordinates made by two microscope-micrometers. This angular position is geometrically connected with the angle which an adopted line of collimation makes with the plane of the meridian, and the latter may be calculated from the former, when the numerical values of three constants involved in the analytical formula have been ascertained.

The instrumental operations for finding the constants are exactly the same as those by which the collimation, level, and azimuth errors are found on the supposition of equal and cylindrical pivots. Hence the reduction to the meridian for the position of the Transit may be calculated in two ways from the same data, and the results for a given zenith distance ought to agree if the pivots were really equal and cylindrical. The differences between the results may be attributed to the form and relative size of the pivots. These differences being ascertained at any date for zenith distances increasing by a given interval, may be assumed to be constant during the year preceding and the year following, and their values for any zenith distances may be found by interpolation.

A description of the manner of using the microscope-micrometers for the purpose above-mentioned, and an investigation of the general formula for the angular deviation (ξ) of the line of collimation from the plane of the meridian, with the methods of determining the three constants which the formula involves, are given in detail in the Memoirs of the Royal Astronomical Society, Vol. XIX. p. 103, to which I beg to refer for further information. The formulæ used for the reduction of the Transit observations of 1850 were obtained as follows.

The general formula for the value of ξ is,

$$\xi = d + (f_2 y_2 + k - f_1 y_1) \cos z + (g_2 x_2 + h - g_1 x_1) \sin z,$$

in which y_1, y_2 are the micrometer readings for bisection of the east and west points respectively by the micrometer wires placed horizontally, and x_1, x_2 are the micrometer readings for bisection of the same by the wires placed vertically: f_1, f_2, g_1, g_2 are factors by which the micrometer readings are converted into seconds of arc: $f_1 y_1, f_2 y_2 + k$ are the vertical ordinates of the points in seconds referred to the same horizontal plane, and $g_1 x_1, g_2 x_2 + h$ are the horizontal ordinates referred to the same vertical plane perpendicular to the meridian, the former being reckoned positive upwards, and the latter positive towards the south: d is a constant which has a different value according as the Illumination is East or West, and z is the Zenith Distance South.

For finding the factors f_1, f_2, g_1, g_2 , two circles are engraved about the points, or dots, bisected by the micrometer wires, the diameter of that at the Illumination end of the axis being $0^{\text{in}}, 0465$, and the diameter of the other $0^{\text{in}}, 0458$. The distance between the dots being ascertained by measurement, the angles subtended by the diameters at the dots, that is, the angular measures of the diameters, are known. The factor to be used for converting a micrometer reading of either microscope into angular measures for a given position of the Transit, is found by dividing the angular measure of the diameter of that circle which surrounds the dot bisected, by its measure in micrometer revolutions.

Let d_e and d_w represent the values of d for Illumination East and West respectively. Then supposing ξ to be positive if the line of collimation points to the *East* of the meridian, the value of ξ , when the Telescope is directed to the Nadir, is $-a$, or $-b$ according as the Illumination is East or West. (See p. iii). Let $F_2 Y_2 + k, F_1 Y_1$, be the vertical co-ordinates of the West and East dots, the Telescope pointing to the Nadir and Illumination West, and $F'_2 Y'_2 + k, F'_1 Y'_1$, the like co-ordinates for Illumination East. Then putting 180° for z , we shall have from the general formula,

$$\begin{aligned} -a &= d_w - F_2 Y_2 - k + F_1 Y_1 \\ -b &= d_e - F'_2 Y'_2 - k + F'_1 Y'_1. \end{aligned}$$

Again, if θ be the constant angle which the direction of collimation makes with the line joining the dots, in one position of the instrument $\theta = 90^\circ - a +$ the angular elevation of the West end of that line, that is

$$\theta = 90^\circ - a + F_2 Y_2 + k - F_1 Y_1,$$

and in the reverse position $180^\circ - \theta = 90^\circ - b + F'_2 Y'_2 + k - F'_1 Y'_1$.

Hence we obtain a third equation,

$$0 = -a - b + F_2 Y_2 - F_1 Y_1 + F'_2 Y'_2 - F'_1 Y'_1 + 2k.$$

Putting for brevity Y_w for $F_2 Y_2 - F_1 Y_1$, and Y_e for $F'_2 Y'_2 - F'_1 Y'_1$, the three equations give

$$\begin{aligned} k &= \frac{a + b}{2} - \frac{Y_w + Y_e}{2}, \\ d_e = -d_w &= \frac{a - b}{2} - \frac{Y_w - Y_e}{2}. \end{aligned}$$

Hence the general formula becomes

$$\xi = \pm \left(\frac{a-b}{2} - \frac{Y_w - Y_e}{2} \right) + \left(f_2 y_2 - f_1 y_1 + \frac{a+b}{2} - \frac{Y_w + Y_e}{2} \right) \cos \alpha + (g_2 x_2 - g_1 x_1 + h) \sin \alpha,$$

according as the Illumination is East or West. And if ξ_1 be the value that would be obtained for ξ on the supposition of equal and cylindrical pivots,

$$\xi_1 = \pm \frac{a-b}{2} + \frac{a+b}{2} \cos \alpha + c \sin \alpha,$$

c being the azimuth error. Hence

$$\xi - \xi_1 = \pm \frac{Y_e - Y_w}{2} + \left(f_2 y_2 - f_1 y_1 - \frac{Y_w + Y_e}{2} \right) \cos \alpha + (g_2 x_2 - g_1 x_1 + h - c) \sin \alpha.$$

The following is the process for finding $h - c$. Let t_1 be the noted time of superior transit of a star whose N.P.D. is δ , and t_2 the noted time of inferior transit corrected for the clock's rate and change of the star's R.A. in the interval (12^h) between the transits. Then if ξ' be the value of ξ for the former transit and ξ'' that for the other,

$$(t_2 - \frac{\xi''}{15} \operatorname{cosec} \delta) - (t_1 + \frac{\xi'}{15} \operatorname{cosec} \delta) = 12^h.$$

But on the supposition of cylindrical and equal pivots,

$$(t_2 - \frac{\xi''_1}{15} \operatorname{cosec} \delta) - (t_1 + \frac{\xi'_1}{15} \operatorname{cosec} \delta) = 12^h.$$

$$\text{Hence} \quad \xi'' - \xi''_1 + \xi' - \xi'_1 = 0.$$

Consequently putting for brevity y' or y'' for $f_2 y_2 - f_1 y_1$, and x' or x'' for $g_2 x_2 - g_1 x_1$, according as the transit is above or below the pole, we shall have, l being the colatitude of the Observatory,

$$\xi'' - \xi''_1 = \pm \frac{Y_e - Y_w}{2} + \left(y'' - \frac{Y_w + Y_e}{2} \right) \cos(l + \delta) - (x'' + h - c) \sin(l + \delta),$$

$$\xi' - \xi'_1 = \pm \frac{Y_e - Y_w}{2} + \left(y' - \frac{Y_w + Y_e}{2} \right) \cos(l - \delta) - (x' + h - c) \sin(l - \delta),$$

whence it will be readily found that

$$h - c = \pm \frac{Y_e - Y_w}{2 \sin l \cos \delta} - \frac{Y_w + Y_e}{2} \cot l + \frac{y'' \cos(l + \delta) + y' \cos(l - \delta) - x'' \sin(l + \delta) - x' \sin(l - \delta)}{2 \sin l \cos \delta}.$$

The constants in the expression for $\xi - \xi_1$ being thus found, the correction in time for the form of the pivots is obtained by the formula,

$$\text{Correction} = \frac{\xi - \xi_1}{15} \operatorname{cosec} \text{N.P.D.}$$

In the year 1850 two sets of measures were taken for the determination of this correction, one on June 19, and the other on July 16. The following are the data obtained on the former day for the values of the constants.

The distance between the dots = $49^{\text{in}}.7$. The Telescope pointing to the Nadir, and Illumination West, the diameter of the East circle = $12', 477$, and that of the West circle = $12', 348$, $Y_2 = 9', 898$, and $Y_1 = 9', 380$. From these data and the known diameters of the circles in linear measure it was found that $Y_w = +11'', 83$. After reversing the instrument the diameter of the East circle was $12', 664$, and that of the West circle $12', 167$, $Y'_2 = 8', 895$, and $Y'_1 = 10', 426$. Hence by calculation, $Y_e = -19'', 92$.

The micrometer measures for calculating the effect of the forms of the pivots were only taken for the position of Illumination East. The following were the different measures of the diameters of the circles taken in that position of the instrument for the values of the micrometer revolutions.

Horizontal Measures.

Zen. Dist. South.	West Micrometer.	East Micrometer.
+ 90°	12,186	12,694
50	12,215	12,645
0	12,194	12,642
- 39°. 17' } Polaris SP. }	12,252	12,645
- 90	12,227	12,652
Means	12,215	12,656

Vertical Measures.

Zen. Dist. South.	West Micrometer.	East Micrometer.
180°	12,167	12,664
- 50	12,152	12,640
Means	12,160	12,640

As the separate measures differ little from each other, the above means of the horizontal measures are used for all the calculations of horizontal ordinates, and the means of the vertical measures for the vertical ordinates.

The micrometer readings for bisections of the dots were taken for Zenith Distances of 0° , 10° , 20° , &c. North and South. Those for the Zenith Distances of Polaris and Polaris SP, being interpolated to second differences were found to be as follows: for Polaris, $y_2 = 10^r,403$, $y_1 = 10^r,484$, $x_2 = 9^r,802$, $x_1 = 9^r,943$; for Polaris SP, $y_2 = 10^r,285$, $y_1 = 10^r,435$, $x_2 = 9^r,791$, $x_1 = 9^r,940$. From these data and the foregoing mean measures of the diameters of the circles, the following results were obtained:

$$\begin{aligned} y' \cos(l - \delta) &= +2'',05, & x' \sin(l - \delta) &= +0'',54, \\ y'' \cos(l + \delta) &= +1'',12, & x'' \sin(l + \delta) &= +0'',49, \end{aligned}$$

the star's N.P.D. being $1^\circ.29',7$ and the colatitude $37^\circ.47',1$. The polar distance of Polaris was selected because this star was used for finding by the ordinary process the azimuth error.

The above results suffice for the calculation of the constants in the formula for $\xi - \xi_1$. The calculations being gone through, the resulting formula is,

$$\xi - \xi_1 = -15'',88 + (f_2 y_2 - f_1 y_1 + 4'',04) \cos z + (g_2 x_2 - g_1 x_1 - 18'',96) \sin z.$$

It must, however, be remarked that in the investigation of this expression, the collimation and level errors from which ξ_1 is calculated, are supposed to be obtained from the values of a and b given by the collimating eye-piece and by reversing the instrument. But in the reduction of the transit observations the adopted level error is found by the spirit-level, and L_e is used in the place of $\frac{a+b}{2}$ and $L_e - b$ in the place of $\frac{a-b}{2}$; and for Illumination West, L_w is used for $\frac{a+b}{2}$ and $L_w - a$ for $-\frac{a-b}{2}$. Hence putting l for $\frac{a+b}{2}$, we require to know $L_e - l$, or $L_w - l$. Mean values of these quantities were inferred from the following determinations of level error made nearly contemporaneously by the two methods.

Date of Reversion.	a	b	l	L_w	L_e	$L_w - l$	$L_e - l$
1849, Feb. 28 ...	-4'',06 ...	-5'',54 ...	-4'',80 ...	-6'',06 ...	-4'',12 ...	-1'',26 ...	+0'',68
Aug. 24 ...	+3'',29 ...	+2'',39 ...	+2'',84 ...	+0'',78 ...	+2'',98 ...	-2'',06 ...	+0'',14
1850, April 13 ...	+2'',54 ...	+3'',14 ...	+2'',84 ...	+0'',53 ...	+3'',08 ...	-2'',31 ...	+0'',24
May 15 ...	+1'',67 ...	+1'',61 ...	+1'',64 ...	-0'',23 ...	+2'',05 ...	-1'',87 ...	+0'',41
June 19 ...	+1'',76 ...	+0'',51 ...	+1'',14 ...	-1'',21 ...	+1'',26 ...	-2'',35 ...	+0'',12
July 16 ...	+0'',67 ...	-0'',65 ...	+0'',01 ...	-1'',21 ...	+0'',56 ...	-1'',22 ...	+0'',55

The mean values of $L_w - l$ and $L_e - l$ are $-1'',85$ and $+0,36$. Hence in the calculation of ξ_1 , the collimation and level errors have each been increased by $0'',36$, and the consequent increment of azimuth error as found by imaginary transits of Polaris above and below pole being $+1'',06$, the expression for $\xi - \xi_1$ which has been used is the following:

$$\xi - \xi_1 = -16'',24 + (f_2 y_2 - f_1 y_1 + 3'',68) \cos z + (g_2 x_2 - g_1 x_1 - 20'',02) \sin z.$$

Subjoined are the observed values of y_1 , y_2 , x_1 , x_2 for different zenith distances, and the resulting values of $\xi - \xi_1$ given by this formula.

Zen. Dist. South.	y_1	y_2	x_1	x_2	$\xi - \xi_1$	Zen. Dist. South.	y_1	y_2	x_1	x_2	$\xi - \xi_1$
- 0°	10,517	9,134	9,764	10,000	-2'',93	+ 0°	10,858	11,458	9,853	10,227	+0'',77
80	10,527	9,340	9,735	9,842	-3,07	10	10,861	11,589	9,874	10,467	+1,14
70	10,496	9,545	9,750	9,726	-2,44	20	10,817	11,662	9,887	10,710	+1,91
60	10,450	9,732	9,786	9,694	-2,01	30	10,724	11,660	9,873	10,950	+2,90
50	10,386	9,945	9,891	9,743	-1,13	40	10,598	11,592	9,839	11,196	+4,11
40	10,432	10,275	9,940	9,790	-0,01	50	10,542	11,541	9,900	11,501	+4,82
30	10,613	10,627	9,863	9,816	-0,68	60	10,638	11,527	10,042	11,823	+3,85
20	10,738	10,954	9,820	9,883	-0,47	70	10,755	11,496	10,120	12,116	+3,65
10	10,815	11,242	9,824	10,022	+0,24	80	10,780	11,396	10,163	12,357	+3,78
- 0	10,858	11,458	9,853	10,227	+0,77	+ 90	10,776	11,224	10,190	12,566	+3,89

The measures of July 16 were taken for Zenith Distances differing by 5° , but like those of June 19, only apply to the position of the instrument in which the Illumination is East. By exact measurement the distance between the dots was ascertained to be $49''_{84}$, the caps on which they are engraved not being pushed on the pivots so far as on June 19. The following are the data for obtaining the formula for $\xi - \xi_1$, the letters having the significations already explained.

Illumination West, Diameter of East circle = $12^r,507$, Diameter of West circle = $12^r,393$, $Y_2 = 10^r,215$, $Y_1 = 8^r,861$. Hence $Y_w = +24'',33$.

Illumination East, Diameter of East circle = $12^r,683$, Diameter of West circle = $12^r,185$, $Y'_2 = 9^r,806$, $Y'_1 = 9^r,360$. Hence $Y_e = +11'',36$.

The following were the measures of the Diameters of the circles, Illumination East.

Vertical Measures.

Zen. Dist. South.	West Micrometer.	East Micrometer.
+ 90°	12,168	12,736
+ 45	12,177	12,711
0	12,185	12,683
- 45	12,198	12,670
- 90	12,218	12,657

Horizontal Measures.

Zen. Dist. South.	West Micrometer.	East Micrometer.
+ 90°	12,235	12,672
+ 45	12,260	12,653
0	12,254	12,639
- 45	12,263	12,626
- 90	12,241	12,622

The micrometer readings for the zenith distance of Polaris, obtained by interpolation, were $y_2 = 10^r,366$, $y_1 = 8^r,627$, $x_2 = 9^r,314$, $x_1 = 10^r,829$, and those for the zenith distance of Polaris SP, $y_2 = 10^r,331$, $y_1 = 8^r,575$, $x_2 = 9^r,301$, $x_1 = 10^r,869$. Hence using the measures of the Diameters of the circles corresponding to -45° of zenith distance, it is found that $y' = +30'',04$, $y'' = +30'',29$, $x' = -21'',09$, $x'' = -21'',90$. By these results the general formula becomes,

$$\xi - \xi_1 = -6'',49 + (f_2 y_2 - f_1 y_1 - 17'',85) \cos z + (g_2 x_2 - g_1 x_1 + 26'',81) \sin z.$$

If the constants be corrected respectively by $-0'',36$, $-0'',36$ and $-1'',06$, for the same reason as on June 19, the resulting equation is,

$$\xi - \xi_1 = -6'',85 + (f_2 y_2 - f_1 y_1 - 18'',21) \cos z + (g_2 x_2 - g_1 x_1 + 25'',75) \sin z.$$

The equation actually employed was obtained in another manner, and differed from this in having $26'',20$ in the place of $25'',75$ in the last term through a mistake in calculation. The micrometer readings, y_1 , y_2 , x_1 , x_2 , and the values of $\xi - \xi_1$ given by the formula which was made use of, are contained in the following Table.

Zen. Dist. South.	y_1	y_2	x_1	x_2	$\xi - \xi_1$	Zen. Dist. South.	y_1	y_2	x_1	x_2	$\xi - \xi_1$
- 90	8,671	10,184	11,125	9,054	- 3,62	+ 0	9,254	10,655	10,544	9,439	+ 0,28
85	8,656	10,204	11,064	9,039	- 3,51	5	9,298	10,662	10,529	9,482	+ 0,82
80	8,643	10,216	11,015	9,045	- 3,59	10	9,332	10,649	10,535	9,507	+ 1,24
75	8,625	10,237	10,976	9,053	- 3,37	15	9,371	10,624	10,534	9,533	+ 1,42
70	8,601	10,255	10,935	9,066	- 3,14	20	9,383	10,585	10,533	9,564	+ 1,89
65	8,576	10,240	10,902	9,093	- 3,04	25	9,384	10,538	10,517	9,576	+ 2,41
60	8,531	10,232	10,873	9,127	- 2,63	30	9,373	10,477	10,505	9,592	+ 2,95
55	8,499	10,230	10,888	9,168	- 1,84	35	9,352	10,423	10,486	9,591	+ 3,67
50	8,490	10,241	10,908	9,229	- 1,18	40	9,341	10,361	10,488	9,602	+ 4,10
45	8,510	10,265	10,907	9,280	- 0,73	45	9,334	10,307	10,516	9,641	+ 4,63
40	8,562	10,323	10,879	9,298	- 0,16	50	9,361	10,278	10,584	9,697	+ 4,86
35	8,649	10,381	10,811	9,320	- 0,37	55	9,439	10,270	10,673	9,754	+ 4,59
30	8,772	10,444	10,729	9,312	- 0,71	60	9,550	10,293	10,767	9,795	+ 4,09
25	8,890	10,513	10,656	9,300	- 0,78	65	9,645	10,319	10,831	9,823	+ 4,00
20	8,976	10,556	10,615	9,322	- 0,74	70	9,720	10,317	10,886	9,872	+ 4,35
15	9,071	10,597	10,570	9,333	- 0,72	75	9,774	10,324	10,957	9,912	+ 4,53
10	9,137	10,628	10,558	9,372	- 0,48	80	9,820	10,305	11,004	9,923	+ 4,58
5	9,203	10,653	10,545	9,397	- 0,00	85	9,860	10,295	11,053	9,926	+ 4,58
- 0	9,254	10,655	10,544	9,439	+ 0,28	+ 90	9,905	10,272	11,107	9,934	+ 4,57

The above micrometer readings are all means of three readings corresponding to a bisection of the dot and to contacts of the wire on opposite sides of it. The values of the micrometer revolutions used for calculating $\xi - \xi_1$ were interpolated from those deduced from the measures of the diameters of the circles given above. The results of the observations of June 19 and July 16 are both taken into account in forming the final values of $\xi - \xi_1$. For zenith distances of 0° , 10° , 20° , &c., these are simply the means between the results of the two days: but for the intermediate zenith distances the adopted values were obtained by making the excess of any value above that of July 16 equal to the mean of the excesses of the preceding and following means above the values of that day. The following is a list of the final values of $\xi - \xi_1$ and of the corresponding corrections of the transit times for the forms of the pivots, the Illumination being East.

Zen. Dist. South.	$\xi - \xi_1$	Correction for forms of pivots.	Zen. Dist. South.	$\xi - \xi_1$	Correction for forms of pivots.	Zen. Dist. South.	$\xi - \xi_1$	Correction for forms of pivots.
-90	$-3,27$	$+0,28$	-30	$-0,70$	$-0,34$	$+30$	$+2,92$	$+0,21$
85	$-3,20$	$+0,29$	25	$-0,71$	$-0,21$	35	$+3,65$	$+0,25$
80	$-3,33$	$+0,33$	20	$-0,61$	$-0,13$	40	$+4,10$	$+0,28$
75	$-3,06$	$+0,34$	15	$-0,48$	$-0,08$	45	$+4,62$	$+0,31$
70	$-2,79$	$+0,35$	10	$-0,12$	$-0,02$	50	$+4,85$	$+0,32$
65	$-2,71$	$+0,40$	5	$+0,30$	$+0,04$	55	$+4,52$	$+0,30$
60	$-2,32$	$+0,41$	0	$+0,52$	$+0,06$	60	$+3,97$	$+0,27$
55	$-1,67$	$+0,38$	+5	$+0,92$	$+0,09$	65	$+3,76$	$+0,26$
50	$-1,16$	$+0,37$	10	$+1,19$	$+0,11$	70	$+4,00$	$+0,28$
45	$-0,68$	$+0,36$	15	$+1,42$	$+0,12$	75	$+4,15$	$+0,30$
40	$-0,09$	$+0,16$	20	$+1,90$	$+0,15$	80	$+4,18$	$+0,32$
35	$-0,33$	$-0,45$	25	$+2,40$	$+0,18$	85	$+4,22$	$+0,33$
-30	$-0,70$	$-0,34$	$+30$	$+2,92$	$+0,21$	$+90$	$+4,23$	$+0,36$

From this Table one more convenient for use was formed in which the argument was North Polar Distance, and from which the corrections applied in the reduction of the observations were interpolated. The corrections for Polaris and Polaris SP were $-0^s,29$ and $+0^s,07$; and those for δ Ursæ Minoris and δ Ursæ Minoris SP, $-0^s,35$ and $+0^s,18$.

During the year 1850 the Illumination was West only from Jan. 1 to Jan. 7, from April 5 to April 10, and during part of July 16, and the corrections for forms of the pivots during those intervals were interpolated from the following list, the formation of which will be explained in giving an account of the corrections used in the year 1851.

N.P.D.	Correction.	N.P.D.	Correction.	N.P.D.	Correction.
55	$+0,02$	80	$-0,04$	105	$+0,08$
60	$+0,01$	85	$-0,02$	110	$+0,10$
65	$+0,05$	90	$+0,03$	115	$+0,10$
70	$+0,03$	95	$+0,06$	120	$+0,12$
75	$-0,02$	100	$+0,05$	125	$+0,13$

All the concluded times of transit are corrected for the forms of the pivots previous to the application of the other instrumental errors.

Collimation Error. According to the foregoing investigation of corrections for the forms of the pivots, the collimation error supposed to be used in the reduction of the transits is $\frac{a-b}{2} + 0",36$ for Illumination East, and the level error that immediately given by the spirit-level. But it being supposed inadvertently that the quantity $+0",36$ was included in the correction for forms of the pivots, the collimation error of the middle wire D actually used is $\frac{a-b}{2}$, and the level error $L_e - 0",36$. As this discrepancy was not discovered till the transits were all reduced, and its effect on the reduction to the meridian scarcely differed in any case more than $0^s,01$ from a mean value $0^s,10$ which might be considered to be included in clock error, it was not thought worth while to alter the calculations. Also for the short intervals during which the Illumination was West, the adopted collimation error is that given by the collimating eye-piece. The following were the determinations of collimation error in 1850, all made by the collimating eye-piece.

Jan. 11. 0^h-1^h . Measures were taken just before and after reversing the instrument.

Illumination West.

Mean of 6 readings, micrometer-wire coinciding with its image.....	$23,665$
..... 6 with D	$23,936$

Illumination East.

Mean of 6 readings, micrometer-wire coinciding with its image.....	$24,200$
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The coincidence with D after the reversion, not being taken, is assumed to be the same as before the reversion. Hence by the process explained in p. iv, $a = +4''.62$ and $b = +4''.50$. And as by the Table of Intervals in p. xxix the mean of all the wires was nearer to the Illumination end of the axis than D by $0''.90$, the concluded collimation error, taking into account $-0''.18$ for diurnal aberration, is $-0''.06 + 0''.90 - 0''.18$, or $+0''.66$ before the reversion, and $+0''.06 - 0''.90 - 0''.18$, or $-1''.02$ after the reversion. The value $+0''.7$ is used before Jan. 11, and the value $-1''.0$ after that date.

April 1, 0^h. The collimation error was obtained by the collimating eye-piece and levelling, without reversing the instrument. The image of the micrometer-wire vibrated very much, owing probably to strong wind which prevailed at the time, and the measures were consequently somewhat uncertain.

Illumination East.

Mean of 10 readings, the image of D being mid-way between D and the micrometer-wire	} 24,588
Mean of 6 readings, the micrometer-wire coinciding with D	23,864

In this instance, the reading for coincidence of the micrometer-wire with its image is obtained by adding to the reading for coincidence with D *one-fourth* the difference of the two readings. This method, consequently, tends to diminish the effect of errors in the micrometer readings. The result is $24''.044$, and $\therefore b = +3''.07$. By levelling about the same time, $L_c = +3''.85$; and as the mean excess of L_c above $\frac{a+b}{2}$ has been shewn

to be $+0''.36$, it follows that $\frac{a-b}{2} = +0''.42$, which is the error of collimation of D .

Hence the concluded error of collimation is $-0''.66$, which is used from Feb. 23.

April 13, 0^h—1^h. The Transit had been several times reversed to make trial of the micrometer-microscopes used for bisecting the dots at the ends of the pivots, and to test a new counterpoise apparatus, the application of which was required in consequence of the removal of the old lever counterpoises to make room for the microscopes. The new counterpoises are attached to the interior faces of the Piers, and press upwards against the arms of the Transit by means of springs and friction-wheels. After making these arrangements the collimation error was found as follows.

Illumination West.

Mean of 7 readings, the image of D being mid-way between D and the micrometer-wire (M)	} 24,324
Mean of 6 readings, micrometer-wire coinciding with D	23,919

Illumination East.

Mean of 6 readings, the image of D equidistant from D and M	24,665
..... 6 M coinciding with D	23,928

Hence the reading for coincidence of the micrometer-wire with its image was $23''.770$ before the reversion, and $24''.112$ after the reversion. Consequently $a = +2''.54$, $b = +3''.14$, and $\frac{a-b}{2} = -0''.30$. Hence the concluded Collimation error, Illumination West, is $+1''.02$, which is used April 5—10, and the concluded Collimation Error, Illumination East, is $-1''.38$, which is used from April 15.

May 14. 23^h. The Transit had been reversed for the same purpose as on April 13. On this occasion two sets of measures were taken, the first exhibiting a continual change of reading for which I could not account. The means, however, of the two sets were

very nearly the same. The measures were not altogether satisfactory, the wind blowing hard at the time, and the reflected image being faint and unsteady. Before the second set, the object-glass, which had dust on it, was wiped, and the image was then better seen.

Illumination West.

Mean of 16 readings, the image of D equidistant from D and M	r. 23,460
..... 6 M coinciding with D	23,852

From these measures, by calculating as before, $a = +1''.67$.

May 15. 11^h. The instrument had been reversed at 0^h, and measures taken with reference to the forms of the pivots. The reflected image being very faint and unsteady, apparently from the effect of the wind, the readings for collimation error were uncertain.

Illumination East.

Mean of 6 readings, the image of D equidistant from D and M	r. 24,234
..... 6 M coinciding with D	23,856

Hence it is found that $b = +1''.61$. Taking this value with that of a above, the concluded collimation error, Illumination West, is $+0''.69$, and the concluded collimation error, Illumination East, is $-1''.05$. The former was not required for use; the latter is used from May 1.

June 19. 2^h. The Transit had been reversed for measures to determine the effect of the forms of the pivots. The reflected image was very faint.

Illumination West.

Mean of 7 readings, the image of D equidistant from D and M	r. 23,572
..... 7 M coinciding with D	23,868

By these measures $a = +1''.26$. The value $+1''.76$ used in calculating $L_w - l$ and $L_e - l$, (see p. xxxii), was obtained by a mistake, and those quantities should consequently be $-1''.80$ and $+0''.40$.

June 19. 10^h. After the reversion, wire D was close to its image, and the micrometer-wire was placed by guess between them.

Illumination East.

Mean of 6 readings, M coinciding with its image	r. 23,903
..... 6 with D	23,873

Hence $b = +0''.51$, and $\frac{a-b}{2} = +0''.37$. The concluded collimation error is therefore $+0''.35$ or $-0''.71$, according as the Illumination is West or East. The latter value is used from June 1.

July 16. 0^h. 1^h. The determination of collimation error on this day had reference to the calculation of the effect of the forms of the pivots. For the sake of experiment the trough of mercury was removed to a greater distance from the object-glass, but the reflected image was not thereby improved, and was somewhat fainter. The readings for coincidence of the micrometer-wire with its image were difficult and uncertain on account of the closeness of the wire D .

Illumination West.

Mean of 7 readings, M coinciding with its image	r. 23,839
..... 6 with D	23,878

Illumination East.

Mean of 6 readings, M coinciding with its image	r. 23,835
..... 6 with D	23,873

Hence $a = +0''.67$, $b = -0''.65$, and $\frac{a-b}{2} = +0''.66$.

July 17. 22^h. On account of the uncertainty of the foregoing readings, arising from the position of *D*, the wire-frame was shifted and the following readings were then taken.

Illumination East.

Mean of 6 readings, <i>D</i> equidistant from its image and <i>M</i>	23,418
..... 6 <i>M</i> coinciding with <i>D</i>	23,697

Illumination West.

Mean of 7 readings, <i>D</i> equidistant from its image and <i>M</i>	23,324
..... 6 <i>M</i> coinciding with <i>D</i>	23,702

Illumination East.

Mean of 7 readings, <i>D</i> equidistant from its image and <i>M</i>	23,393
..... 6 <i>M</i> coinciding with <i>D</i>	23,690

In these cases the interval between *D* and the vertical plane through the optical centre of the object-glass is *half* the interval between *D* and *M*. This arrangement of the wires and their images is therefore not so good as that made on April 1. As the micrometer readings increase as the wire moves from the Illumination, it will be seen that from the first and second measures $a = -3'',22$, $b = +2'',39$ and $\frac{a-b}{2} = -2'',80$; and from the second and third measures $a = -3'',22$, $b = +2'',52$, and $\frac{a-b}{2} = -2'',87$. It appears by the coincidences with *D* taken July 16 and 17, that the wire-frame was shifted through $+3'',00$. Hence the two foregoing values of $\frac{a-b}{2}$ corrected for this quantity are $+0'',20$ and $+0'',13$. Taking these with the value obtained on July 16, the mean of the three is $+0'',33$. Hence the concluded collimation error before the shifting of the wire-frame is $+0'',39$ or $-0'',75$, according as the Illumination is West or East. The former value is used for the observation of the Sun July 16, and the latter for the other observations of that day and those of July 17.

Shortly after the measures of July 17 the wire-frame was again shifted in order that the collimation error might not remain large, and by coincidences with *D* before and after, the amount of shifting was found to be $-2'',59$. Hence the collimation error was altered to $-3'',00 + 2'',59 - 0'',75$, or $-1'',16$, which is the value used from July 21.

While taking the third set of measures on July 17, I remarked that the reading for coincidence of the micrometer-wire with its image varied on moving the Telescope northward or southward from the Zenith, in consequence of the wire not being accurately parallel to the plane of the meridian. To obviate this source of error the measures in future are taken in that position of the Telescope in which the horizontal wires between which the transits are observed are reciprocally coincident with their images. It is feared that inattention to this adjustment may have affected previous results.

Dec. 6. 0 $\frac{1}{2}$ ^h. Determination of the collimation error by the collimating eye-piece, without reversing the instrument.

Illumination East.

Mean of 6 readings, <i>D</i> equidistant from its image and <i>M</i>	23,509
..... 6 <i>M</i> coinciding with <i>D</i>	23,830

Hence the reading for coincidence of *M* with its image is 23,990, and $b = +2'',73$. By levelling Dec. 6, 1^h, $L_e - 0'',36 = +2'',73$. Hence $L_e - 0'',36 - b = 0'',00$, and the concluded error of collimation, Illumination East, is $-1'',08$. This value is used from Sept. 30 to the end of the year. The result seems to shew that the collimation error was steady in the interval between this determination and that of July 17.

Level Errors in 1850.

* * See page vi.

Time of Levelling.	Level Error.	Position of Illum. End of Axis.	Temperature.	Time of Levelling.	Level Error.	Position of Illum. End of Axis.	Temperature.	Time of Levelling.	Level Error.	Position of Illum. End of Axis.	Temperature.
Jan. 25. 0 ^h	+3,90	East	43	June 3. 2 ^h	+2,08	East	65	Sept. 2. 2 ^h	+1,21	East	62
25. 2	+4,51	—	44	10. 3 ¹ / ₂	+1,73	—	65	10. 2	+1,33	—	57
Feb. 6. 2	+4,23	—	44	17. 3	+0,83	—	58	16. 2	+1,63	—	57
12. 3	+4,20	—	40	19. 2 ¹ / ₂	-1,21	West	62	23. 2	+1,29	—	59
18. 1 ¹ / ₂	+4,64	—	49	19. 8	+1,26	East	63	Oct. 2. 1 ¹ / ₂	+1,25	—	53
25. 1 ³ / ₄	+3,69	—	44	28. 2	+0,62	—	64	7. 2	+2,25	—	56
Mar. 4. 1 ³ / ₄	+3,13	—	44	July 2. 2	+1,22	—	64	14. 2	+1,83	—	50
11. 2	+3,80	—	45	10. 2	+1,27	—	58	21. 2	+1,95	—	50
25. 2	+3,07	—	36	15. 3	+1,11	—	72	28. 2	+2,29	—	48
Apr. 1. 1	+3,85	—	47	15. 22 ¹ / ₄	-1,79	West	69	Nov. 4. 2	+2,80	—	54
8. 2	+1,37	West	55	15. 22 ¹ / ₂	-1,21	—	69	11. 2	+2,95	—	53
13. 0	+0,53	—	49	16. 1	+0,56	East	70	18. 2	+2,77	—	46
13. 0 ¹ / ₂	+3,08	East	49	17. 21	+0,62	—	65	26. 2	+2,46	—	45
25. 2	+2,02	—	50	25. 2	+0,69	—	63	Dec. 3. 2	+2,61	—	41
May 6. 2	+2,17	—	46	31. 2 ¹ / ₂	+0,86	—	65	6. 1	+3,09	—	46
15. 0	-0,23	West	47	Aug. 5. 2 ¹ / ₂	+1,43	—	72	14. 2	+3,63	—	46
15. 0	+2,05	East	47	12. 2	+0,72	—	64	24. 2	+3,72	—	38
21. 1	+2,95	—	55	19. 2	+0,78	—	62				
27. 2	+2,34	—	58	26. 2	+1,34	—	61				

* * In the reduction of the observations the values of level error are taken to the nearest tenth of a second.

It has already been stated that the adopted level errors, Illumination East, are those given by the spirit-level diminished by the quantity 0",36, which strictly should not have been applied. For the observations of April 5—10 and the observation of the Sun on July 16, during which the Illumination was West, the level errors are those given immediately by the spirit-level. Previous to Jan. 25, the level error could not be obtained by the spirit-level on account of the lengthening of the bubble by the depression of temperature. The adopted level error for the observations on Jan. 1—7 is the mean between the values of a and b given by the measures taken with the collimating eye-piece on Jan. 11. It would have been more correct to use $\frac{a+b}{2} + 1",85$, this value agreeing more nearly with what would be given

by the spirit-level (see p. xxxii). But as there are no determinations of azimuth error depending on the adopted level error, the apparent R.A. would be very little changed by using the more correct value.

In all the levellings the Telescope was horizontal and pointed southward, with the exception of the second on July 15, which was taken with the Telescope horizontal and looking northward, and is not made use of. The first levelling of April 13 and the first of May 15, the former taken soon after fixing the spring-counterpoises, and the latter for trial of the pier-microscopes, were not required for use. Also the first levelling of Jan. 25, during which the bubble was rapidly changing, is not used.

The measure of the inequality of the radii of the pivots, obtained in the manner explained in Vol. X. p. xxviii, is 0",57 as given by the levellings of April 1 and April 8, and 0",59, 0",53, 0",57, and 0",41, as given respectively by the levellings of April 13, May 15, June 19, and July 15—16. These shew an increase upon the quantities obtained in 1849. (See p. vii.)

Calculation of Azimuth Errors in 1850.

* * See page viii.

Approximate Mean Time of observation.	Star.	Seconds of transit corrected for Collimation and Level Errors.	Correction for rate of Clock.	Seconds of the Star's assumed R.A.	Azimuthal Correction of the Interval between the transits.	Value of $h'-h$.	Azimuth Error.	Remarks.
Jan. 23. 9 23. 10	Rigel δ Ursæ Min. SP.	4,91 11,26	+ 0,07	20,44 26,34	- 0,52	+ 0,681	- 0,76	The mean between these is used from Jan. 13. The value + 3'',16, used before the reversion of the Instrument on Jan. 11, was obtained Dec. 29, 1849.
23. 9 23. 10	β Tauri δ Ursæ Min. SP.	33,86 11,26	+ 0,06	49,55 26,34	- 0,67	+ 0,710	- 0,94	
30. 4½ 30. 6	Polaris α Ceti	34,22 1,72	+ 0,09	59,33 26,45	- 0,47	+ 1,570	- 0,30	
Feb. 6. 4 6. 7	Polaris Aldebaran	20,57 47,14	+ 0,13	54,21 19,38	- 1,53	+ 1,561	- 0,98	The mean of - 0'',98 and - 3'',34, viz. - 2'',16, is used from Feb. 3.
6. 4 6. 8	Polaris Rigel	20,57 48,02	+ 0,15	54,21 20,28	- 1,53	+ 1,579	- 0,97	
6. 9 6. 11	δ Ursæ Min. SP. ϵ Hydræ	58,76 18,27	+ 0,08	28,90 50,80	+ 2,31	- 0,692	- 3,34	
13. 3½ 13. 4½	Polaris α Arietis	8,46 4,79	+ 0,03	48,85 43,09	- 2,12	+ 1,556	- 1,86	
18. 8½ 18. 9½	δ Ursæ Min. SP. Castor	50,09 18,78	+ 0,04	32,02 2,31	+ 1,56	- 0,713	- 2,19	Not used, the next being preferable.
22. 7½ 22. 8½	α Orionis δ Ursæ Min. SP.	16,33 46,55	+ 0,02	3,53 33,09	- 0,68	+ 0,693	- 0,98	
Mar. 4. 7½ 4. 8½	δ Ursæ Min. SP. Castor	41,99 5,80	+ 0,04	36,40 2,14	+ 1,89	- 0,713	- 2,65	
5. 2 6. 14	Polaris Polaris SP.	37,41 44,12	+ 1,38	37,36 36,75	- 8,70	+ 3,145	- 2,77	The mean between these viz. - 2'',36 is adopted.
6. 14 7. 2	Polaris SP. Polaris	44,12 37,32	+ 0,46	36,75 36,53	+ 6,12	- 3,145	- 1,95	
12. 2 12. 3	Polaris α Arietis	29,64 39,60	+ 0,03	34,24 42,73	- 1,50	+ 1,556	- 0,96	
27. 1 27. 13	Polaris Polaris SP.	14,03 17,91	+ 0,27	30,34 30,27	- 4,22	+ 3,145	- 1,34	The mean between these viz. - 3'',74 is adopted.
Apr. 17. 23 18. 11	Polaris Polaris SP.	57,26 6,19	+ 0,46	31,61 31,70	- 9,30	+ 3,145	- 2,96	
18. 11 19. 23	Polaris SP. Polaris	6,19 50,77	+ 1,38	31,70 31,91	+ 14,25	- 3,145	- 4,53	
25. 11 26. 23	Polaris SP. Polaris	57,26 46,74	+ 1,48	33,17 33,79	+ 9,66	- 3,145	- 3,07	
May 9. 10 9. 10	Polaris SP. Spica	51,20 26,76	+ 0,01	38,87 19,35	+ 4,91	- 1,565	- 3,14	The mean of the two results is used from May 3. Polaris was taken at only two wires.
9. 10 12. 22	Polaris SP. Polaris	51,20 41,41	+ 3,82	38,87 41,00	+ 8,10	- 3,145	- 2,58	
18. 9 18. 10	Polaris SP. Arcturus	47,55 48,18	+ 0,06	43,93 50,70	+ 6,08	- 1,587	- 3,83	
20. 9 20. 9	Polaris SP. Spica	44,08 14,58	+ 0,01	44,98 19,33	+ 3,84	- 1,565	- 2,45	The mean of these three, viz. - 3'',52, is used from May 17.
22. 9 22. 9	Polaris SP. Spica	45,86 12,22	+ 0,01	46,25 19,32	+ 6,70	- 1,565	- 4,28	

Approximate Mean Time of observation.	Star.	Seconds of transit corrected for Collima- tion and Level Errors.	Correction for rate of Clock.	Seconds of the Star's assumed R.A.	Azimuthal Correction of the Interval between the transits.	Value of $h'-h$.	Azimuth Error.	Remarks.
May 27. 20 28. 8	Polaris Polaris SP.	33,26 44,23	.. + 0,59	50,25 50,60	.. - 11,21	+ 3,145	" - 3,56	The value used from May 25 is the mean of these.
27. 20 29. 8	Polaris Polaris SP.	33,26 45,21	+ 1,76	50,25 51,27	- 12,69	+ 3,145	- 4,04	
June 1. 8 2. 20	Polaris SP. Polaris	41,83 31,23	+ 1,92	53,16 54,11	+ 9,63	- 3,145	- 3,06	
3. 20 4. 8 4. 20	Polaris Polaris SP. Polaris	30,12 40,58 29,07			- 10,46 + 11,51	+ 3,145 - 3,145	- 3,33 - 3,66	Mean = - 3'',50.
8. 8 8. 9	Polaris SP. Arcturus	37,06 23,17	+ 0,06	58,36 50,61	+ 6,08	- 1,587	- 3,83	Not used.
18. 19 19. 7 19. 19	Polaris Polaris SP. Polaris	24,96 34,38 24,65			- 9,42 + 9,73	+ 3,145 - 3,145	- 3,00 - 3,09	Mean = - 3'',04.
July 2. 6 2. 6	Polaris SP. Spica	29,87 24,76	+ 0,01	17,31 19,00	+ 6,79	- 1,565	- 4,34	
14. 6 15. 18	Polaris SP. Polaris	27,47 17,54	+ 2,01	27,14 28,38	+ 9,16	- 3,145	- 2,91	
15. 18 16. 6	Polaris Polaris SP.	17,54 25,67	+ 0,67	28,38 28,80	- 8,38	+ 3,145	- 2,67	Polaris was observed by C, and Polaris SP by B, the latter at only two wires. The result is not used.
Aug. 7. 4 7. 6	Polaris SP. ε Bootis	11,17 47,90	+ 0,08	47,78 26,92	+ 2,32	- 1,594	- 1,46	The mean of these, viz. - 2'',24, is used from July 29. Polaris SP was taken at only two wires.
9. 9 9. 9½	δ Ursæ Minoris β Lyrae	9,66 53,01	+ 0,02	53,47 34,77	- 2,00	+ 0,661	- 3,03	
16. 3 16. 8	Polaris SP. μ¹ Sagittarii	6,20 59,65	+ 0,27	51,89 49,93	+ 4,32	- 1,557	- 2,77	The mean of these, viz. - 3'',04, is used from Aug. 12. Polaris SP was taken at only two wires.
16. 8 16. 9	δ Ursæ Minoris β Lyrae	58,53 44,07	+ 0,02	51,31 34,68	- 2,19	+ 0,661	- 3,31	
23. 4 23. 8	Arcturus δ Ursæ Minoris	50,81 48,77	+ 0,22	49,67 48,78	+ 0,93	- 0,673	- 1,38	
Sept. 4. 7 4. 7½	μ¹ Sagittarii δ Ursæ Minoris	35,56 27,17	+ 0,01	49,66 44,24	+ 2,96	- 0,703	- 4,21	The mean of these is used from Aug. 28. On the first day δ Ursæ Minoris was observed at three wires, at one of them doubtfully, and on the other at only one wire. The latter observation is not inserted in the transits.
6. 7 6. 7½	μ¹ Sagittarii δ Ursæ Minoris	33,28 25,37	+ 0,01	49,63 43,51	+ 1,78	- 0,703	- 2,53	
12. 2 12. 6	Polaris SP. α Ophiuchi	45,03 36,40	+ 0,21	5,95 59,76	+ 2,23	- 1,581	- 1,41	The mean of these, viz. - 1'',78 is used from Sept. 10.
12. 6 12. 7	α Ophiuchi δ Ursæ Minoris	36,40 16,30	+ 0,04	59,76 41,15	+ 1,45	- 0,679	- 2,14	
25. 13 27. 1	Polaris Polaris SP.	30,53 35,43	+ 1,62	10,03 10,51	- 6,04	+ 3,145	- 1,92	
Oct. 30. 1 1. 7	Polaris SP. γ Aquilæ	32,04 26,33	+ 1,09	11,10 9,49	+ 3,01	- 1,580	- 1,91	Not used.
7. 0 7. 12	Polaris SP. Polaris	24,00 20,61	+ 0,63	11,80 11,88	+ 2,84	- 3,145	- 0,93	
15. 0 15. 12 16. 0	Polaris SP. Polaris Polaris SP.	10,33 9,07 10,08			+ 1,26 - 1,01	- 3,145 + 3,145	- 0,40 - 0,32	Mean = - 0'',36.

Approximate Mean Time of observation.	Star.	Seconds of transit corrected for Collimation and Level Errors.	Correction for rate of Clock.	Seconds of the Star's assumed R.A.	Azimuthal Correction of the Interval between the transits.	Value of $h'-h$.	Azimuth Error.	Remarks.
Oct. 20. ^{h.} 23 21. 11 21. 23	Polaris SP. Polaris Polaris SP.	^{s.} 7,36 58,94 4,68	^{s.}	^{s.}	^{s.} + 8,42 - 5,74	- 3,145 + 3,145	" - 2,68 - 1,82	Mean = - 2'',25.
Nov. 4. 10 4. 11	Polaris α Arietis	40,44 17,70	+ 0,05	9,32 47,01	+ 0,38	+ 1,556	+ 0,02	Not used.
4. 10 4. 22	Polaris Polaris SP.	40,44 41,33	+ 0,69	9,32 9,23	- 1,67	+ 3,145	- 0,53	Polaris SP was observed on Nov. 4 and 5 at one wire only, and on Nov. 6 at three wires. Weights being given to the three results proportional to these numbers, the mean result is - 0'',63, which is used from Oct. 30.
4. 10 5. 22	Polaris Polaris SP.	40,44 39,36	+ 2,07	9,22 9,03	- 1,28	+ 3,145	- 0,41	
4. 10 6. 22	Polaris Polaris SP.	40,44 38,78	+ 3,45	9,32 8,79	- 2,32	+ 3,145	- 0,74	
11. 22 14. 10	Polaris SP. Polaris	29,41 22,70	+ 3,73	6,88 5,71	+ 1,81	- 3,145	- 0,58	The mean of these two, viz. - 0'',33 is used from Nov. 11.
13. 22 14. 10	Polaris SP. Polaris	23,89 22,70	+ 0,75	5,94 5,71	+ 0,21	- 3,145	- 0,07	
18. 21 19. 9	Polaris SP. Polaris	18,53 11,50	+ 0,58	3,97 3,79	+ 6,27	- 3,145	- 1,99	
27. 21 28. 9	Polaris SP. Polaris	0,24 59,47	+ 0,68	59,19 58,90	- 0,20	- 3,145	+ 0,06	Polaris taken at only two wires. The mean of the two results, viz. - 0'',24, is used from Nov. 25.
29. 2 29. 3	δ Ursæ Minoris β Aquilæ	9,09 55,35	+ 0,08	11,71 57,68	- 0,37	+ 0,683	- 0,54	
Dec. 6. 1 6. 2	δ Ursæ Minoris β Lyræ	57,10 21,12	+ 0,02	10,03 32,60	- 1,47	+ 0,661	- 2,22	
12. 8 12. 10	Polaris α Ceti	30,20 9,98	+ 0,10	49,96 29,77	- 0,07	+ 1,570	- 0,04	
28. 7 28. 8½	Polaris α Ceti	58,07 50,11	+ 0,08	37,89 29,69	- 0,32	+ 1,570	- 0,20	Polaris at only two wires.
* * In the reduction of the observations the azimuth error is taken to the nearest tenth of a second.								

The assumed apparent R.A. employed in the above calculations are the R.A. of the Nautical Almanac corrected by the excesses in the subjoined Table, and in the instances of Polaris and δ Ursæ Minoris, by the small quantities in pages 502 and 503 of the Nautical Almanac for 1850.

Assumed Mean R.A. Jan. 1, 1850, of the Fundamental Stars.

Star.	Assumed Mean R.A. Jan. 1, 1850.	Excess above R.A. of Naut. Alm.	Star.	Assumed Mean R.A. Jan. 1, 1850.	Excess above R.A. of Naut. Alm.
<i>α</i> Andromedæ..	<i>h. m. s.</i> 0. 0. 38,59	+ 0,06	Arcturus.....	<i>h. m. s.</i> 14. 8. 49,28	+ 0,08
<i>β</i> Ceti.....	0. 36. 3,50	+ 0,14	<i>ε</i> Bootis.....	14. 38. 26,19	+ 0,07
Polaris.....	1. 5. 1,12	+ 0,30	<i>α</i> ² Libræ.....	14. 42. 35,31	+ 0,04
<i>α</i> Arietis.....	1. 58. 43,67	+ 0,09	<i>α</i> Coronæ.....	15. 28. 20,26	+ 0,05
<i>α</i> Ceti.....	2. 54. 26,61	+ 0,03	<i>α</i> Serpentis....	15. 36. 53,01	+ 0,13
Aldebaran.....	4. 27. 19,11	+ 0,03	<i>δ</i> Ophiuchi....	16. 6. 29,38	+ 0,11
Rigel.....	5. 7. 19,84	+ 0,03	Antares.....	16. 20. 13,09	+ 0,07
<i>β</i> Tauri.....	5. 16. 48,83	+ 0,07	<i>α</i> Herculis.....	17. 7. 48,62	+ 0,13
<i>α</i> Orionis.....	5. 47. 3,14	+ 0,03	<i>α</i> Ophiuchi....	17. 27. 58,45	+ 0,15
Sirius.....	6. 38. 32,34	+ 0,00	<i>μ</i> ¹ Sagittarii....	18. 4. 47,63	+ 0,11
Castor.....	7. 25. 1,42	+ 0,14	<i>δ</i> Ursæ Minoris.	18. 21. 43,23	- 0,42
Procyon.....	7. 31. 26,88	+ 0,15	<i>β</i> Lyræ.....	18. 44. 32,58	+ 0,11
Pollux.....	7. 56. 7,86	+ 0,06	<i>ζ</i> Aquilæ.....	18. 58. 31,02	+ 0,14
<i>ε</i> Hydræ.....	8. 38. 49,81	+ 0,04	<i>γ</i> Aquilæ.....	19. 39. 7,74	+ 0,11
<i>α</i> Hydræ.....	9. 20. 12,95	+ 0,07	<i>α</i> Aquilæ.....	19. 43. 27,85	+ 0,06
Regulus.....	10. 0. 22,76	+ 0,05	<i>β</i> Aquilæ.....	19. 47. 56,73	+ 0,11
<i>δ</i> Leonis.....	11. 6. 7,50	+ 0,07	<i>α</i> ² Capricorni...	20. 9. 43,74	+ 0,14
<i>β</i> Leonis.....	11. 41. 24,35	+ 0,10	<i>β</i> Aquarii.....	21. 23. 39,55	+ 0,06
<i>β</i> Corvi.....	12. 26. 31,08	+ 0,21	<i>α</i> Aquarii.....	21. 58. 4,71	+ 0,12
Spica.....	13. 17. 17,84	+ 0,11	<i>α</i> Pegasi.....	22. 57. 17,59	+ 0,12

The assumed Mean R.A. were deduced from the results of the observations of the fundamental stars in 1849 in the manner explained in p. xii. The mean excess above the R.A. of the Nautical Almanac, excluding Polaris and *δ* Ursæ Minoris, is + 0,089 as in 1849.

In the transits of 1850 there are only two instances (excluding Polaris) in which observations by different observers occur in the same group, those on April 28 and September 12. In the former the transit of B, which appeared to indicate personal equation, is not made use of; and in the latter, B's clock-errors, contrary to former experience, agreed very nearly with T's, and have accordingly been grouped with them.

It is the practice to record transits taken at fewer than three wires, and to reduce them as other observations. But in general these observations are eventually rejected, especially if they refer to fundamental stars. In the printed transits of 1850 there are, however, several exceptions to this rule. The observations of *γ* Aquilæ January 5, *β* Lyræ February 3, and Ophiuchi August 20, and of the Moon November 12, were retained through inadvertence. Those of *α* Andromedæ February 19, *β* Aquilæ July 11, Procyon Aug. 6, and *α* Pegasi Oct. 17, were used for clock-error because there were few other clock stars in the same groups: but in such cases, as mentioned in the notes, the weight given to each clock-error is nearly proportional to the number of wires on which it depends. The transits of Polaris at one wire on November 4 and 5 are used with that of November 6 at three wires, to obtain an azimuth error of greater weight, but are not reduced to Apparent R.A. There are also observations of moving bodies at fewer than three wires, which are taken notice of in the remarks to the collection of observations of the Sun, Moon, and Planets in pp. 280—286.

II. *Mean Right Ascensions of the Fundamental Stars, as deduced from the separate observations.* Pages 206—209.

The results of the separate transits of the Fundamental Stars are arranged by themselves, because each star is generally observed a large number of times in the course of the year; but the separate results of the observations of the other stars, together with the mean results of the year's observations of all the stars, are collected in the next section. This arrangement, which differs from that of former years, has been adopted for the sake of saving space.

III. *Mean Right Ascensions of Stars deduced from the separate observations, and Concluded Mean Right Ascensions of the Stars observed in 1850, with the Annual Variations.* Pages 212—225.

Under this head are collected the days of observation of the stars that are not fundamental, the corrections from the apparent R.A. to the mean R.A., and the resulting mean R.A.; together with the names, approximate N.P.D., number of observations, concluded R.A., and Annual Variations of all the stars observed in the year 1850. The column of 'observed magnitudes' contains only the magnitudes noted at the time of taking the transits.

The corrections from the apparent to the mean R.A., and the Annual Variations, were calculated by the formulæ used for 1849. (See p. xv and p. xxii.)

IV. *Apparent North Polar Distances observed with the Mural Circle.* Pages 228—259.

The arrangement of the printed observations of N.P.D. are the same for 1850 as for the preceding year, with the exception that the times by the clock Molyneux of bisection of the circumpolar stars Polaris, δ Ursæ Minoris, and 51 (Hev.) Cephei are inserted in the space at the bottom of the page, together with the error of the clock as determined by circle transits of known stars, or the difference between Hardy and Molyneux.

Observations of Runs in 1850.

Time of Observation, 1850.	Excess of micrometer-reading for preceding division above micrometer-reading for following division, for each microscope.						Corr. for Runs for 5'.	Temperature.	Time of Observation, 1850.	Excess of micrometer-reading for preceding division above micrometer-reading for following division, for each microscope.						Corr. for Runs for 5'.	Temperature.
	A	B	C	D	E	F				A	B	C	D	E	F		
Jan. 7. ^{h.} 8	+0,6	+5,5	-1,5	+1,0	+2,2	+3,6	+11,4	32	July 7. ^{h.} 23	-0,9	+4,1	-3,7	-0,9	+0,1	+2,8	+1,5	58
15. 1	+2,1	+5,8	-2,7	+3,2	+0,5	+3,6	+12,5	29	9. 0	+0,1	+4,2	-3,2	+0,4	+2,3	+2,7	+6,5	58
22. 1	+1,8	+5,3	-1,8	+1,9	+1,3	+2,8	+11,3	32	0	-0,5	+4,4	-2,7	0,0	+2,6	+3,2	+7,0	60
1	+1,6	+5,4	-2,0	+1,8	+0,7	+2,6	+10,1		30. 10	+0,5	+3,7	-3,0	+1,0	+2,7	+2,4	+7,3	63
29. 2	+1,5	+4,5	-1,2	+1,9	+0,4	+3,2	+10,3	42	Aug. 5. 3	+0,1	+4,1	-2,8	-0,5	+2,4	+1,9	+5,2	
Feb. 12. 2	+1,3	+5,1	-1,1	+1,7	+0,9	+2,6	+10,5	39	3	+0,4	+3,9	-2,4	-0,7	+1,7	+2,9	+5,8	
2	+0,8	+4,5	-2,3	-0,1	+0,9	+2,2	+6,0		12. 3	0,0	+4,0	-3,0	-0,3	+1,3	+2,8	+4,8	
13. 2	-1,0	+4,5	-2,4	+1,1	+0,2	+4,3	+6,7	48	19. 1	-0,6	+4,1	-3,6	-0,1	+2,9	+3,0	+5,7	64
19. 5	+0,4	+4,8	-2,4	+2,0	-0,8	+2,2	+6,2	48	1	+0,1	+3,5	-2,5	-0,5	+2,7	+1,4	+4,7	
25. 2	+0,8	+4,8	-2,4	-0,2	-0,1	+1,7	+4,7	44	26. 1	+0,3	+5,2	-3,6	+0,1	+1,2	+0,7	+3,9	62
2	+1,2	+4,1	-3,6	+0,2	+0,1	+3,4	+5,4		1	-0,4	+3,8	-3,0	+0,6	+2,9	+2,4	+6,3	
Mar. 5. 2	+0,2	+4,5	-2,1	+1,3	+0,6	+2,5	+7,0	43	Sept. 2. 1	+0,6	+3,9	-2,9	-0,8	+0,7	0,0	+1,5	63
2	+1,3	+5,3	-3,0	+1,1	+0,3	+3,0	+8,0		1	-0,1	+3,4	-2,9	+0,4	+1,5	+3,3	+5,6	
12. 2	+0,7	+4,5	-2,6	+0,8	+0,4	+2,4	+6,2	44	9. 10	0,0	+4,5	-2,0	+0,6	+2,0	+3,1	+8,2	57
2	+1,5	+4,7	-1,7	+2,3	-0,2	+3,0	+9,6	43	10	0,0	+4,1	-2,2	+0,2	+2,1	+3,0	+7,2	
20. 2	+0,6	+4,8	-2,1	+1,0	+0,6	+1,8	+6,7	43	18. 2	+0,7	+4,1	-2,3	+0,7	+2,1	+2,7	+8,0	
26. 22	+1,0	+5,8	-2,4	+2,1	+0,7	+4,3	+11,5	35	2	+0,2	+4,1	-2,8	-0,4	+2,8	+2,4	+6,3	
Apr. 8. 20	+0,8	+4,1	-2,4	+0,3	-0,9	+2,8	+4,7	50	23. 2	-1,0	+4,5	-2,5	-0,3	+1,6	+2,1	+4,4	
20	+0,4	+4,4	-2,7	+1,1	-1,3	+2,1	+4,0		2	-0,5	+4,4	-2,9	+0,2	+2,4	+2,2	+5,8	59
15. 2	+0,7	+4,3	-2,3	+0,8	-0,5	+2,9	+5,9	51	Oct. 2. 2	+0,2	+4,4	-3,5	-0,4	+2,9	+1,5	+5,1	53
May 2. 7	+1,8	+4,8	-1,8	+1,6	+0,1	+2,3	+8,8	45	9. 2	+0,8	+4,4	-2,5	+0,7	+2,3	+1,7	+7,4	54
7	+1,5	+4,2	-2,5	+0,4	-0,1	+2,0	+5,5		2	+0,6	+3,7	-3,5	+1,1	+3,0	+3,0	+7,9	
9. 8	+1,0	+4,6	-2,0	+1,4	+1,4	+3,9	+10,3	46	14. 2	+0,3	+4,9	-2,7	+1,0	+2,6	+2,0	+8,1	50
8	+0,7	+4,4	-2,8	+0,9	-0,2	+3,6	+6,6		2	+0,1	+4,1	-3,2	+1,0	+2,0	+3,5	+7,5	
21. 22	+0,6	+3,8	-2,6	+0,6	-0,6	+2,2	+4,0		28. 2	-0,2	+4,3	-2,3	+0,6	+1,8	+1,2	+5,4	47
22	+0,9	+3,9	-2,2	+0,9	+0,3	+3,2	+7,0		Nov. 1. 11	-0,2	+4,1	-3,3	+0,5	+1,5	+1,6	+4,2	53
27. 2	+0,3	+4,3	-2,4	+0,8	-0,2	+2,1	+4,9	58	11	-0,2	+4,4	-3,0	-0,4	-0,8	+2,9	+2,9	
2	+0,7	+4,5	-3,3	+0,5	-0,3	+2,8	+4,9		6. 2	+0,1	+4,9	-1,0	+0,5	+2,2	+2,8	+9,5	53
June 3. 2	0,0	+4,1	-3,0	+0,4	0,0	+1,9	+3,4	64	11. 2	0,0	+4,1	-2,2	+1,0	+3,0	+1,5	+7,4	54
10. 2	+1,1	+4,0	-2,8	+0,7	-0,4	+2,5	+5,1	64	12. 2	+1,4	+4,9	-3,0	+1,7	+2,1	+2,6	+9,7	53
2	0,0	+3,2	-3,8	+0,8	-0,1	+2,8	+2,9		2	+0,9	+4,3	-3,3	+2,5	+2,4	+3,6	+10,4	
16. 22	0,0	+4,0	-3,0	+0,5	-0,5	+1,7	+2,7	57	18. 2	-0,7	+5,0	-2,7	+1,0	+2,3	+2,1	+7,0	45
22	+0,7	+4,4	-2,6	+1,4	-0,9	+3,1	+6,1		2	+0,6	+4,0	-2,6	+1,3	+1,8	+2,1	+7,2	
22. 1	-0,7	+3,2	-3,5	+0,6	+0,1	+2,9	+2,6	69	28. 5	+1,0	+4,0	-2,3	+1,2	+2,5	+4,1	+10,5	39
1	+0,3	+3,7	-2,8	-1,1	-1,8	+3,0	+1,3		Dec. 9. 21	+1,2	+4,7	-2,1	+1,4	+2,7	+2,6	+10,5	38
July 5. 12	-0,4	+4,4	-3,0	+0,3	-0,4	+3,2	+4,1	59	20. 6	+0,6	+5,4	-2,1	+1,2	+2,6	+3,5	+11,2	32
6. 8	+0,1	+4,8	-2,3	+0,9	-0,7	+2,2	+5,0	60	26. 1	+0,4	+4,4	-2,5	0,0	+2,1	+3,2	+7,6	46

For an explanation of the rules according to which the corrections for Runs were in general adopted in the calculation of Zenith Points and in the reduction of the observations see p. xvii. The correction $+10''.1$ used from the beginning of the year was obtained on Dec. 31, 1849. The mean of the values obtained on February 18 and 19 is adopted from Feb. 15. The correction used for the Sun on July 8 is the mean of those of July 6 and July 7.

On July 8 at 4^h, the wires of microscope E were accidentally broken in an attempt to adjust the eye-piece. I immediately put in new wires, thicker than the former and better for bisecting with. In replacing the microscope, the eye-piece accidentally fell and the field-glass was cracked. The use of the microscope was not, however, interfered with, the part of the field required for bisections being unaffected by the fracture. Before replacing the microscope I took out and cleaned the object-glass. It will be seen by the foregoing Table that the Run of the micrometer was increased in consequence of these alterations.

The mean of the three corrections obtained on October 28 and November 1 is used from October 21. The value $+4''.5$ applied to four microscopes on November 2 was deduced from the Runs taken on November 6. The correction used for the observations of Nov. 11—14 is the mean of the three values obtained Nov. 11 and 12.

July 6, 6¹/₂^h, I took the following measures for determining the value of one revolution of the Circle micrometer. The mark on the tower of Grantchester Church, described in p. xxviii of Vol. XVII was made use of. It waved considerably, and was somewhat obscure, the sky being densely clouded and rain falling during a part of the time. Temperature, 59°.5.

Micro-meter reading.	Pointer reading.	Microscope A	B	C	D	E	F	Correction for Runs.	Concluded Circle reading.	Difference.	Mean of consecutive differences.
- 12	156.15	0.26,7	28,0	29,6	27,1	29,4	24,5	+ 0,5	156.15.27,63	8.20,27	8.19,50
+ 12	156.20	3.47,4	45,4	50,4	48,2	49,7	42,5	+ 3,8	156.23.47,90	8.18,72	8.19,61
- 12	156.15	0.28,0	29,4	30,6	28,7	31,8	26,1	+ 0,5	156.15.29,18	8.20,50	8.20,68
+ 12	156.20	3.49,1	47,0	52,2	50,0	51,9	44,1	+ 3,8	156.23.49,68	8.20,86	8.20,40
- 12	156.15	0.27,9	29,3	30,0	29,2	30,5	25,5	+ 0,5	156.15.28,82	8.19,95	8.19,90
+ 12	156.20	3.48,2	46,2	51,7	48,8	50,8	43,1	+ 3,8	156.23.48,77	8.19,84	8.19,18
- 12	156.15	0.27,8	29,2	30,5	28,8	30,8	26,0	+ 0,5	156.15.28,93	8.18,52	8.18,75
+ 12	156.20	3.46,8	45,1	50,4	47,6	49,4	41,6	+ 3,8	156.23.47,45	8.18,98	8.19,61
- 12	156.15	0.27,4	28,7	30,6	28,4	30,6	24,6	+ 0,5	156.15.28,47	8.20,25	8.20,39
+ 12	156.20	3.48,0	46,2	51,8	48,6	50,6	43,3	+ 3,8	156.23.48,72	8.20,52	
- 12	156.15	0.27,4	28,4	30,1	28,3	30,0	24,5	+ 0,5	156.15.28,20		

The correction for Runs for 5', obtained immediately after the above measures, was $+5''.0$. The mean of the nine differences in the last column, being divided by 24, gives $20''.824$ for the value of the micrometer revolution, which is less than the values obtained in former years. It is, however, to be remarked that before the above measures were taken, the distance of the micrometer-wire from the object-glass had been adjusted so that the wire and its image could be seen with equal distinctness when looked at with the collimating eye-piece. This had not been the case before. It is probable that the wire had been placed so that it could be seen distinctly with the mark on Grantchester tower. I find by calculation that the difference of focal distance for stars and for the mark is one-seventeenth of an inch: consequently after the above adjustment, the micrometer-wire and the mark could not be seen well in focus at the same time. On this account I obtained the value of the micrometer revolution by means of the collimating eye-piece, by placing the wire and its image in coincidence first on one side of the field and then on the other, and reading off the micrometer and the circle in the two positions. The field of the collimating eye-piece is scarcely large enough for this purpose, and when the wire was placed near the border, both it and its image were seen indistinctly. The measures were taken July 7, 22^h, partly by coincidence of the wire and its image, and partly by placing the wire on one side and the other of the image at distances judged to be equal.

Micro-meter reading.	Pointer reading.	Microscope A	B	C	D	E	F	Correction for Runs.	Concluded Circle reading.	Difference.
2,258	246.20	2.37,9	34,4	37,9	36,3	36,5	33,3	+ 0,8	246.22.36,18	' "
20,384	246.25	3.56,2	52,0	58,0	55,5	55,1	51,0	+ 1,2	246.28.54,83	6.18,65
2,281	246.20	2.38,2	35,4	39,7	37,6	38,0	33,5	+ 0,8	246.22.37,20	6.17,63

The corrections for Runs were derived from the Runs taken on July 8. The above micrometer-readings are respectively the means of 11, 10 and 12 separate readings. The value of the micrometer revolution given by the first difference is 20",890, and that given by the other is 20",860. As it was discovered that the circle was not clamped during the first set of measures, some doubt was thrown upon the first value, and the other was consequently adopted for the observations taken subsequently to July 3. The value used previous to that date is 20",850, this being the mean of several preceding determinations. Also the shifting of the wire-frame towards the object-glass would increase the value of the micrometer revolution by about 0",10.

With respect to corrections to the meridian for change of N.P.D. in the interval between the bisection and the transit across the middle wire, it is only necessary to add to what is stated in p. xviii, that for the Sun and Moon the horary variations of N.P.D. are taken from the Nautical Almanac, and that the interval for the Moon is accurately calculated by means of the formula in p. xxix.

Zenith Points obtained in 1850 with the Collimating Eye-piece.

* * See page xix.

Time of Observation.	Seconds of Zenith Point.	Time of Observation.	Seconds of Zenith Point.	Time of Observation.	Seconds of Zenith Point.
Jan. 7. 8 ^A	51,11	May 27. 2 ^A	53,78	Sept. 23. 2 ^A	18,02
15. 1	53,90	June 3. 2	55,05	Oct. 2. 2	17,75
22. 1	52,88	10. 2	54,39	9. 2	18,30
29. 2	52,00	16. 22	53,86	14. 2	17,61
Feb. 12. 2	53,53	22. 1	54,92	28. 2	17,85
18. 2	53,32	July 5. 11	17,52	Nov. 6. 2	17,51
25. 2	53,19*	7. 23	17,89	11. 2	18,05
Mar. 5. 2	53,51	8. 4	17,92	20	17,11
12. 2	53,45	30. 10	17,59	28. 5	18,15
20. 2	53,71	Aug. 5. 3	17,82	Dec. 9. 21	17,01
26. 22	54,51	12. 3	17,86	21	17,24
Apr. 8. 20	53,38	19. 1	18,13	20. 6	17,44
15. 2	53,84	26. 1	16,91	26. 1	16,22
May 2. 7	54,78	Sept. 2. 1	16,72	1	16,09
9. 8	54,42	9. 10	18,00		
21. 22	54,56	18. 2	17,32		

* 'Very steady.' This note is omitted in p. 231.

The Zenith Point used from the beginning of the year till the Circle was taken from the wall on Jan. 7 is that obtained Dec. 31, 1849. Between Jan. 7 and Jan. 15 the micrometer apparatus was removed from the Telescope Tube to oil the screw and adjust the comb. On Jan. 17 the micrometer-wire was adjusted equatorially. Between June 22 and July 5, the microscopes were re-adjusted, and the micrometer-wire was adjusted equatorially and as to its distance from the object-glass. The Zenith Point used on July 4 was inferred from the reflection and direct observations of δ Ursæ Minoris on that day, because the equatorial adjustment of the micrometer-wire was effected after the day's observations. The Zenith Point was taken on July 8 on account of the accident to the wires of Microscope E already mentioned. The Zenith Point used on Nov. 2 is that of Nov. 6 as given by the four microscopes which were read off for the observations of the former day. The tendency of the zenith point to a maximum at the hottest part of the year is observable in this list as in that for 1849.

The corrections for deducing the Mean from the Apparent N.P.D., and the Annual Variations, in pages 262—276, were calculated by the formulæ used for 1849. (See pages xxi and xxii.)

Mean Excess for each Star of the adopted Zenith Points above the Zenith Points given by direct and reflection observations in the year 1850.

* * See page xxiii.

Star.	Zen. Dist. South.	No. of Obs.	Mean value of M—Z.	Star.	Zen. Dist. South.	No. of Obs.	Mean value of M—Z.
δ Ursæ Minoris SP.	— 41. 11	1	— 0,10	α Coronæ.....	+ 24. 59	1	+ 1,23
Polaris SP.....	— 39. 17	5	+ 0,01	η Tauri.....	+ 28. 35	1	+ 0,16
Polaris.....	— 36. 18	3	— 0,45	α Arietis.....	+ 29. 28	1	+ 1,50
51 (Hev.) Cephei..	— 35. 2	1	+ 0,58	γ Cancrī.....	+ 30. 13	1	— 1,33
δ Ursæ Minoris....	— 34. 23	2½	0,00	Arcturus.....	+ 32. 15	3	+ 0,23
B.A.C. 2326.....	— 30. 28	1	— 0,04	γ Herculis.....	+ 32. 42	1	+ 1,31
κ Cephei.....	— 25. 3	1	— 1,96	η Bootis.....	+ 33. 4	2	+ 0,35
β Cephei.....	— 17. 41	1	+ 0,02	α Delphini.....	+ 36. 50	1	+ 0,14
Α Draconis.....	— 16. 53	1	+ 0,01	α Pegasi.....	+ 37. 49	1	+ 0,04
ι Cephei.....	— 13. 12	1	+ 0,92	Regulus.....	+ 39. 31	4	+ 0,78
α Draconis.....	— 12. 53	1	— 0,54	α Ophiuchi.....	+ 39. 32	1	+ 1,10
h Ursæ Majoris....	— 11. 30	2	— 0,18	ο Leonis.....	+ 41. 39	1	+ 0,44*
κ Cassiopeiæ.....	— 9. 53	1	+ 1,68	ι Ophiuchi.....	+ 41. 48	1	+ 0,61
α Cephei.....	— 9. 44	1	+ 0,34	γ Aquilæ.....	+ 41. 58	1	+ 1,00
ο Ursæ Majoris....	— 9. 0	1	— 1,10	ο Virginis.....	+ 42. 39	1	— 0,52
δ Cephei.....	— 5. 26	1	— 0,21	ξ Tauri.....	+ 43. 0	1	— 0,60
ζ Cephei.....	— 5. 15	1	+ 0,80	α Aquilæ.....	+ 43. 44	1	+ 2,30
78 Ursæ Majoris ..	— 4. 58	1	+ 1,15	ξ ¹ Ceti.....	+ 44. 4	1	+ 0,24
γ Ursæ Majoris....	— 2. 19	1	— 0,22	ζ Hydræ.....	+ 45. 42	1	+ 1,35
η Ursæ Majoris....	+ 2. 9	1	+ 1,43	e Piscium.....	+ 47. 22	1	— 1,48
51 Andromedæ....	+ 4. 21	1	+ 1,18	α Aquarii.....	+ 53. 16	1	0,00
δ Cygni.....	+ 7. 27	1	+ 2,26	κ Aquilæ.....	+ 59. 34	2	— 0,14
λ Ursæ Majoris....	+ 8. 33	1	+ 0,91	α Hydræ.....	+ 60. 14	1	— 0,44
ο Andromedæ.....	+ 10. 42	1	+ 1,34	κ Virginis.....	+ 61. 47	1	+ 0,98
ε ¹ Lyræ.....	+ 12. 42	1	+ 0,09	Spica.....	+ 62. 35	1	+ 0,72
ρ Herculis.....	+ 14. 56	2	+ 0,91	λ Virginis.....	+ 64. 54	1	— 0,04
β Lyræ.....	+ 19. 1	1	+ 1,38	α ² Capricorni.....	+ 65. 13	1	+ 0 80
Castor.....	+ 20. 0	4	+ 0,54	Sirius.....	+ 68. 44	3	+ 0,78
ζ Persei.....	+ 20. 47	1	— 0,16	τ Ceti.....	+ 68. 57	1	+ 0,58
ζ Cygni.....	+ 22. 36	1	+ 1,32	μ ¹ Sagittarii.....	+ 73. 18	1	+ 0,78
β Tauri.....	+ 23. 44	2	+ 0,44	β Corvi.....	+ 74. 47	1	+ 2,88
Pollux.....	+ 23. 50	4	+ 0,94				
α Andromedæ.....	+ 23. 57	1	+ 1,61				
ε Bootis.....	+ 24. 30	2	+ 0,94				

* The observation of March 4 is not included.

Corrections for Discordance of Zenith Points and Error of the assumed Co-latitude, applied to N.P.D. obtained by direct and reflection observations in 1850.

N.P.D.	Correction to direct observation.	Correction to reflection observation.	N.P.D.	Correction to direct observation.	Correction to reflection observation.	N.P.D.	Correction to direct observation.	Correction to reflection observation.
— 5	+ 0,40	+ 0,34	+ 40	+ 1,24	— 0,50	+ 85	+ 0,54	+ 0,20
0	+ 0,30	+ 0,44	45	+ 1,36	— 0,62	90	+ 0,47	+ 0,27
+ 5	+ 0,21	+ 0,53	50	+ 1,39	— 0,65	95	+ 0,48	+ 0,26
10	+ 0,14	+ 0,60	55	+ 1,34	— 0,60	100	+ 0,62	+ 0,12
15	+ 0,07	+ 0,67	60	+ 1,23	— 0,49	105	+ 0,98	— 0,24
20	+ 0,06	+ 0,68	65	+ 1,08	— 0,34	110	+ 1,22	— 0,48
25	+ 0,19	+ 0,55	70	+ 0,94	— 0,20	115	+ 1,31	— 0,57
30	+ 0,59	+ 0,15	75	+ 0,78	— 0,04	+ 120	+ 1,35	— 0,61
+ 35	+ 0,98	— 0,24	+ 80	+ 0,64	+ 0,10			

The correction of the assumed co-latitude is $+0''.37$. According to the above Table the Zenith direction as given by the collimating eye-piece is $+0''.72$ more *southward* than the direction given by direct and reflection observations of Stars. In 1849 the deviation was *northward*. (See the Errata.)

V. *Horizontal and Vertical Measures of the Diameters of the Sun and Moon, compared with Tabular Diameters.* Pages 278 and 279.

The sidereal intervals occupied by transits of diameters are the differences of the concluded transits of the first and second Limbs over the mean of the seven wires, extracted from column 10 of the observed R.A.; and the vertical diameters by observation are the differences of the apparent N.P.D. of the North and South Limbs, extracted from the Circle observations, and corrected for the difference of the Parallaxes of the Limbs. In the case of the Moon a correction is applied for defect of illumination of one of the Limbs. The formulæ for calculating the Moon's Parallax and the corrections for the defect of illumination will be given hereafter.

The tabular intervals occupied by the transits of diameters, and the tabular diameters for the Sun, and, in the first instance, for the Moon, were taken from the Nautical Almanac, the Moon's semi-diameter being interpolated to second differences. But as Adams's corrections were subsequently applied to the Moon's Parallaxes, the tabular semi-diameter was taken equal to the corrected Horizontal Equatorial Parallax multiplied by the constant 0.273114. (See Naut. Alm. of 1857, p. vii.) The tabular interval of transit of the Moon's diameter was then altered in the ratio of the new value of the semi-diameter to the interpolated value.

The differences between the observed and the tabular values of the intervals of transit and of the vertical diameters are exhibited for the purpose of furnishing data for correcting the tabular diameters. In the case of the Moon the tabular error of the interval of transit is converted into error of diameter in arc, by assuming the latter to have to the Moon's semi-diameter the same ratio that the former has to the sidereal interval occupied by the transit of the semi-diameter.

VI. *Right Ascensions and North Polar Distances of the Sun, the Moon, and Planets observed in 1850, compared with Tabular R.A. and N.P.D.; with the Greenwich Mean Solar Times of Transit of centre.* Pages 280—286.

The concluded Right Ascensions and North Polar Distances of the centres of the moving bodies are deduced from their apparent R.A. and N.P.D. in the previous part of the work, by applying corrections of which the explanation is as follows.

The corrections applied to Apparent Right Ascensions are those for reducing observations of limbs to observations of centres. It is to be understood that both limbs were observed unless one is mentioned under the head of 'Limb observed,' and that the concluded R.A. of centre is the mean of the apparent R.A. of the limbs.

When one limb of the Sun is observed, the R.A. of centre is inferred from the apparent R.A. of the Limb, by applying the sidereal time occupied by the transit of the semi-diameter as given in the Nautical Almanac.

The Right Ascension of the Moon at the time of transit of centre is obtained from the observed R.A. of the Limb, by applying the sidereal time occupied by the transit of the semi-diameter, taken, first, from the section of Moon-culminating stars in the Nautical Almanac, and then altered in the ratio of the semi-diameter deduced from Adams's corrected parallax to the interpolated semi-diameter.

The corrections for defect of illumination of one of the Moon's Limbs on April 25 and August 21, the amounts of which are stated at the bottom of page 282, were found by first ascertaining the Moon's distance in R.A. from the point of opposition to the Sun,

and multiplying this distance by the cosine of the Sun's declination. The versed sine of the resulting arc on the Moon's surface, converted into time, is the required correction, and is additive or subtractive according as the second or first limb was defective.

The R.A. of centre for all the other bodies, is that immediately given by observation.

The *Geocentric North Polar Distance of Centre* from observation, is deduced from the observed apparent N.P.D., by applying corrections for parallax, for semi-diameter when a single Limb is observed, and for the error of assumed co-latitude and the discordance of zenith points. In the case of the Sun, the observed apparent N.P.D. of centre is the mean of the observed N.P.D. of the Limbs, and in the case of the Moon the observed apparent N.P.D. of the Limb is the mean of the determinations at the several wires, corrected for the position of the Circle, as will be shortly explained.

The parallaxes of the Sun and Planets were calculated by the formula given in p. xxvii. When both limbs of the Sun are observed, the parallax of each is calculated, for the purpose of correcting the measure of the diameter to what it would be as seen from the Earth's centre, and the mean of the two parallaxes is applied to the apparent N.P.D. of centre.

The formula used for computing the parallax of the Moon's Limbs is

$$\sin p = \frac{r}{r'} \sin (P + \alpha) \sin z,$$

where P is Adams's equatorial horizontal parallax, and the quantity α is a small correction introduced by finding exactly the parallax of the Limb, that is, the angle made by a tangent to the highest or lowest point of the Moon's surface, as seen from the place of observation, with a tangent to the highest or lowest point, as seen from the Earth's centre. In using the above formula, the sine is not considered equal to the arc. The other elements of the calculation are the same as for the planets.

For the calculation of α , which is dependent on the zenith distance, I must refer to the *Cambridge Observations*, Vol. IV, for 1831, p. 147. The following is a table of its values, for the North and South Limbs, and for different zenith distances.

Zenith Distance.	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
Corr. for N.L.	- 0,03	- 0,04	- 0,05	- 0,06	- 0,06	- 0,07	- 0,08	- 0,08	- 0,09	- 0,09	- 0,09
Corr. for S.L.	+ 0,10	+ 0,11	+ 0,12	+ 0,12	+ 0,13	+ 0,14	+ 0,15	+ 0,15	+ 0,16	+ 0,16	+ 0,16

When a single Limb of the *Sun* is observed with the Circle, the assumed semi-diameter applied to the Geocentric N.P.D. of the Limb, is taken immediately from the Nautical Almanac.

For the *Moon*, the assumed semi-diameter is the equatorial horizontal parallax multiplied by the constant 0,273114.

The corrections applied for defect of illumination of the Moon's North or South Limb, the amounts of which are stated in the notes in pages 282 and 283, were calculated as follows. From the spherical triangle SPM , the angles of which are at P the pole of the heavens, S the Sun's centre, and M the Moon's centre, the angle PMS was calculated from the known parts, PS , PM , and the angle SPM . According as the angle PMS is greater or less than 90° , the North Limb or the South Limb is defective. This calculation was performed whenever both Limbs were observed, to decide which was the defective Limb, and when a single Limb was observed, if it were doubtful whether or not it was defective. The side SM being calculated from the same triangle, and θ being the difference between 90° and the angle PMS , an angle θ' was calculated by

the formula $\sin \theta' = \sin \theta \sin SM$. Then Δ being the measure of the Moon's diameter by the observation, the required correction is $\Delta \tan^2 \frac{\theta'}{2}$, additive or subtractive, according as the South or North Limb was defective.

As the corrections for change of the Moon's N.P.D. reduced the observations to the position of the middle wire, additional small corrections were required on account of the deviation of the middle wire from the meridian. These corrections were calculated as follows.

The collimation, level, and azimuth errors of the middle were first calculated from the following Circle transits.

Date.	Star.	Wire I.			II.		III.		IV.		V.		Concluded transit over wire III.				
		<i>h.</i>	<i>m.</i>	<i>s.</i>	<i>m.</i>	<i>s.</i>	<i>m.</i>	<i>s.</i>	<i>m.</i>	<i>s.</i>	<i>m.</i>	<i>s.</i>	<i>h.</i>	<i>m.</i>	<i>s.</i>		
July 1 ...	δ Ursæ Minoris R ...	18.	11.	59,5	...	16.	37,0	...	21.	12,0	...	...	...	18.	21.	13,56	
1 ...	δ Ursæ Minoris D ...	18.			...			...	25.	49,5	...	30.	28,3	...	18.	21.	12,81
1 ...	β Lyræ	18.	43.	40,3	...	44.	0,1	...	44.	19,5	...	44.	58,9	...	18.	44.	19,62
1 ...	α ² Capricorni.....	20.	8.	56,6	...	9.	13,5	...	9.	30,2	...	9.	47,2	...	20.	9.	30,32
8 ...	δ Ursæ Minoris.....	18.	11.	17,6	...	15.	55,0	...	20.	32,0	...	25.	10,5	...	29.	46,2	...

The transit of δ Ursæ Minoris July 8 was merely used for finding the intervals of wires I, II, IV and V from wire III, which are assumed to be the same as on July 1. By these intervals, which shewed that wire III coincided almost exactly with the mean of the wires, the transits are reduced to wire III. The excess of the reflection transit of July 1 above the direct transit being $+0^s,75$, the level error calculated by the formula in p. xxv is found to be $+0'',40$. By comparisons of Hardy and Molyneux on July 1 and 3 by the intervention of the Solar Chronometer W, M was ascertained to be $16^s,94$ slow at $18^h.50^m$ sidereal time on July 1, and its losing rate to be $0^s,22$ per day. Hence the collimation and azimuth errors being a and c , and the assumed apparent R.A. of the stars July 1, as deduced from the Nautical Almanac, being respectively, $18^h.21^m.2^s,04$, $18^h.44^m.34^s,73$, and $20^h.9^m.45^s,70$, the observations give the following equations for determining a and c :

$$\begin{array}{lll} \delta \text{ Ursæ Minoris R.} & \beta \text{ Lyrae.} & \alpha^2 \text{ Capricorni.} \\ -23,83 = +1,124a - 0,635c. & -1,86 = +0,080a + 0,026c. & -1,58 = +0,068a + 0,062c. \end{array}$$

The mean of the last two equations combined with the first gives $a = -24'',48$ and $c = +2'',07$. From these values of the three errors the following results were obtained by the Transit-reducer mentioned in p. xii.

N.P.D.	Interval from meridian to middle wire.	N.P.D.	Interval from meridian to middle wire.
60°	$+1,8$	95°	$+1,5$
65	$+1,7$	100	$+1,5$
70	$+1,6$	105	$+1,6$
75	$+1,6$	110	$+1,6$
80	$+1,5$	115	$+1,7$
85	$+1,5$	120	$+1,8$
90	$+1,5$		

These results are used for the observations previous to July 3 when the Circle was taken from the wall.

Subsequently to July 3 the position of the Circle was ascertained by Circle transits of various known stars, which gave the following results, the errors of Molyneux being obtained by comparisons with Hardy.

Day of Observation 1850.	Star.	N.P.D.	Interval from meridian to middle wire.	Day of Observation 1850.	Star.	N.P.D.	Interval from meridian to middle wire.
Sept. 28 ...	α^2 Capricorni ...	$103^\circ. 0'$	$-0,90$	Nov. 14 ...	β Aquarii ...	$96^\circ. 14'$	$-1,34$
28 ...	α Aquarii	$91^\circ. 3'$	$-1,15$	14 ...	ϕ Aquarii ...	$96^\circ. 51'$	$-1,75$
28 ...	α Pegasi.....	$75^\circ. 36'$	$-1,87$	14 ...	ψ^3 Aquarii...	$100^\circ. 26'$	$-1,46$
28 ...	α Andromedæ...	$61^\circ. 44'$	$-1,67$	14 ...	27 Piscium...	$94^\circ. 23'$	$-1,50$
28 ...	β Ceti	$108^\circ. 49'$	$-0,80$	25 ...	Aldebaran ...	$73^\circ. 48'$	$-1,83$

From the above the following mean results, which are used for the latter half of the year, were obtained by graphical construction.

N.P.D.	Interval from meridian to middle wire.	N.P.D.	Interval from meridian to middle wire.
60	-1,85	95	-1,32
65	-1,82	100	-1,22
70	-1,75	105	-1,10
75	-1,72	110	-0,90
80	-1,61	115	-0,83
85	-1,54	120	-0,72
90	-1,43		

The interval from the meridian for any observation being obtained from the foregoing data by interpolation, the change of the Moon's N.P.D. in the interval was calculated from the variation for 10^m in the hourly Ephemeris of the Nautical Almanac.

In addition to the foregoing Circle transits, the following unaccompanied by comparisons of Molyneux with Hardy, were used for finding the approximate error of Molyneux, and reducing observations of Polaris and δ Ursæ Minoris to the meridian. The preceding results shew that the position of the circle was sufficiently exact for this purpose.

Day.	Star.	Transit by Molyneux.			Molyneux fast.		Day.	Star.	Transit by Molyneux.			Molyneux fast.	
		h.	m.	s.					h.	m.	s.		
Mar. 11 ...	Regulus ...	10.	2.	34	...	+2.10	May 28 ...	Spica	13.	20.	57	...	+3.38
Apr. 2 ...	β Leonis ...	11.	44.	1	...	2.35	June 1 ...	α Coronæ.	15.	32.	2	...	3.40
5 ...	α Hydræ ...	9.	22.	54	...	2.40	3 ...	α Serpentis	15.	40.	35	...	+3.40
May 2 ...	Spica	13.	20.	28	...	3.9	7 ...	ϵ Bootis...	14.	38.	10	...	-0.18*
20 ...	Spica	13.	20.	47	...	+3.28	Oct. 15 ...	H.C. 39210	20.	17.	34	...	+0.39†

* Molyneux had been put forward 4^m. † The apparent R.A. was deduced from the mean R.A. 1849,0 in p. 109.

All the observations of N.P.D. of the Sun, Moon, and Planets have been corrected for the discordance of Zenith Points and the error of the assumed co-latitude by the Table in p. xlvii.

The *Greenwich Mean Solar Time* of transit of centre is calculated from the R.A. of centre at meridian transit in the manner explained in p. xxvii.

In those instances where Circle observations of the Sun and Moon are not accompanied by Transit observations, the Greenwich Mean Solar Time is calculated from the R.A. of centre at Cambridge meridian transit, as deduced from the Nautical Almanac, and corrected in the case of the Moon for approximate tabular error of R.A.

The Greenwich Mean Time for Flora on Oct. 21 was obtained by extending the daily Ephemeris in p. 627 of the Nautical Almanac for 1853, the third differences being supposed constant, and applying a correction for error of the Ephemeris. For the same Planet on Nov. 23 the Greenwich Mean Time was deduced from a contemporaneous Greenwich meridian observation, and that for Hygeia on July 27 from an equatorial observation taken at Berlin on the same day (*Ast. Nach.* Vol. XXXI. p. 377). For Victoria Nov. 23, and for Neptune Aug. 9, Oct. 31, Nov. 25 and Dec. 17, the Greenwich Mean Times were calculated from the R.A. of the respective Ephemerides, and for Egeria on Nov. 28 the Greenwich Mean Time is interpolated from those of Nov. 23, 25 and 29.

The *seconds of Tabular R.A. and N.P.D.*, from which the *Errors of the Tables* are deduced, have been derived for the Sun from the R.A. and N.P.D. at meridian transit in the Nautical Almanac, by applying corrections for the difference of meridians. The seconds of Tabular R.A. of the Moon's centre are calculated, by first applying to the R.A. of the Limb in the section of Moon-culminating stars in the Nautical Almanac, the sidereal time occupied by the transit of the semi-diameter as there given, and then correcting for the difference of meridians. The seconds of N.P.D. of centre are derived from the same section of the Nautical Almanac by merely correcting for the difference of meridians.

The reduction of the Tabular R.A. and N.P.D. of the Sun, Moon, and Planets, from the Greenwich to the Cambridge transit, is facilitated by the use of Table VI. at the end of this Introduction, which gives the means of readily calculating the value of $\frac{22,75}{3600} \times$ the horary variation of Right Ascension or Declination, for all values of the horary variation to 1300 seconds of time or space.

The tabular R.A., N.P.D., and Log. distance of Flora were calculated for the respective Greenwich Mean Times, corrected for aberration, from the following Elements of Dr Brünnow, contained in the *Berliner Jahrbuch* for 1852, p. 382:

Mean Anomaly 1850, Oct. 1,0 Berlin Mean Time	339 . 0 . 6,3	} Mean $\mathcal{A}Eq^x$. 1850, Oct. 1, 0.
Longitude of Perihelion	32 . 48 . 27,4	
Longitude of Ascending Node.....	110 . 20 . 13,2	
Angle of Eccentricity.....	9 . 2 . 13,7	
Inclination	5 . 53 . 2,8	
Logarithm of Mean Distance	0,3426964	
Daily increment of Mean Anomaly	1086'',33020	

For the observations included within September 14 and October 15 advantage was taken of the Meridian Ephemeris in the Nautical Almanac for 1853, p. 627, which was calculated from the same Elements. But as by our calculations the R.A. for the meridian transit of Sept. 14 was less by 0^s,07. and the N.P.D. greater by 1'',10, and for the meridian transit of Oct. 12 the R.A. was less by 0^s,10, and N.P.D. greater by 1'',21, than those of the Nautical Almanac, these differences are distributed over the Meridian Ephemeris in order to make it consistent with the results of our calculation. The Log. distance for the observations from Sept. 14 to Oct. 12 were interpolated from the Ephemeris in the *Berliner Jahrbuch* for 1852, p. 393. For correcting the Greenwich Mean Times for aberration, the approximate Ephemeris in p. 626 of the Nautical Almanac was made use of.

The tabular R.A., N.P.D., and Log. distance of Victoria were interpolated from the Ephemeris of M. Yvon Villargeau in the *Astronomische Nachrichten*, Vol. XXXI. No. 741.

The tabular R.A. and N.P.D. of Iris to June 1 were taken from the Meridian Ephemeris in the Nautical Almanac for 1853, p. 629, (corrected as mentioned below), and Log. distance from p. 391 of the *Berliner Jahrbuch* for 1852. For the observations subsequent to June 1 the tabular places and Log. distance were calculated from Schubert's Elements in p. 382 of the *Berliner Jahrbuch*, which are the Elements used in the calculations of the Nautical Almanac, viz :

Mean Anomaly 1850, May 16,0 Berlin Mean Time	202 . 34 . 28,5	} Mean $\mathcal{A}Eq^x$. 1850, May 16, 0.
Longitude of Perihelion	41 . 24 . 10,9	
Longitude of Ascending Node	259 . 42 . 50,1	
Angle of Eccentricity	13 . 25 . 40,2	
Inclination	5 . 28 . 16,6	
Logarithm of Mean Distance	0,3774912	
Daily increment of Mean Anomaly	963'',31818	

As our calculated places for the meridian transits of May 2 and June 1, compared with those of the Nautical Almanac gave the excesses -0^s,007 and -0^s,018 of R.A., and the excesses +0'',08 and -0'',12 of N.P.D., these corrections for the sake of uniformity have been distributed over the tabular places anterior to June 3. The rates of change of R.A. and N.P.D. from which the aberration corrections of June 3, 4, 7, and 8 were calculated, were deduced from a combination of Cambridge and Greenwich observations.

The tabular places and Log. distance of Hebe were calculated for the respective Greenwich Mean Times, corrected for aberration, from Luther's Elements in p. 382 of the *Berliner Jahrbuch* for 1852, viz.:

Mean Anomaly 1850, April 1,0 Berlin Mean Time...	174 . 35 . 31,0	} Mean $\mathcal{A}eq^x$. 1850, April 1, 0.
Longitude of Perihelion.....	15 . 10 . 7,1	
Longitude of Ascending Node	138 . 31 . 38,2	
Angle of Eccentricity	11 . 36 . 18,6	
Inclination.....	14 . 46 . 42,4	
Logarithm of Mean Distance	0,3849569	
Daily increment of Mean Anomaly	938",79562	

The corrections of the Greenwich Mean Times for aberration were deduced from the approximate Ephemeris in p. 388 of the same work. The tabular place of March 28 is taken from the Meridian Ephemeris in p. 633 of the Nautical Almanac for 1853, the R.A. corrected by $-0^s,06$ and the N.P.D. by $+0'',03$, these corrections being inferred from the differences between our computed places for the meridian transits of March 27 and April 10 and those of the Nautical Almanac. The Log. distance for March 28 was taken from the Berlin daily Ephemeris.

The tabular places and Log. distance of Parthenope were interpolated from Luther's Ephemeris in the *Astronomische Nachrichten*, Vol. XXX. No. 720, and those of Hygeia from D'Arrest's Ephemeris in the Monthly Notices of the Royal Astronomical Society, Vol. X. p. 130. The place of the latter Planet for August 14 was calculated from D'Arrest's Elements, the Ephemeris extending only to July 31: and as by comparison with a place which we calculated for July 31, the R.A. of the Ephemeris was in excess by $+3^s,85$ and its N.P.D. by $-1'',16$, these corrections have been applied to the computed place of August 14. It must however be remarked that the resulting tabular errors are uncertain.

The tabular places and the parallaxes of Egeria were inferred from the comparison made by Professor Hubbard of the Washington Observatory, in the *Astronomical Journal* (Vol. II. p. 66), of places computed from his second Elements, with the Cambridge observations as published in the Monthly Notices of the Royal Astronomical Society, Vol. XI. p. 33. The R.A. and N.P.D. there given differ slightly from the finally reduced values in p. 285.

The tabular places of Neptune were interpolated from Walker's Ephemeris in the *Astronomische Nachrichten*, Vol. XXXI. No. 721, and the parallaxes were inferred from the values of Log. distance added to the Ephemeris.

The tabular R.A., N.P.D., and Log. distance of Petersen's Third Comet were calculated for the respective Greenwich Mean Times, corrected for aberration, from the following Elements of M. Yvon Villarceau in the *Astronomische Nachrichten*, Vol. XXXI. No. 735.

Perihelion Passage, 1850, July 23, 52671 Paris M.T.

Longitude of the Perihelion	273 . 24 . 31,6	} Mean $\mathcal{A}eq^x$. of 1850, July 23, 5.
Longitude of the Ascending Node	92 . 53 . 28,9	
Inclination	68 . 12 . 4,6	
Perihelion Distance	1,0815025	
Motion direct.		

The corrections of the Greenwich Mean Times for aberration were deduced from the Ephemeris of Mr Sonntag in the *Astronomische Nachrichten*, Vol. XXX. No. 720.

The *Determination of the Position of the Ecliptic and of the mean error of the assumed Right Ascensions of the Fundamental Stars from the Transit and Circle Observations of the Sun* in 1850, in pages 287 and 288, has been inserted to give the means of inferring absolute errors of the Solar, Lunar, and Planetary Tables from the observations of this Volume. The calculations have been made on the following principles.

The true longitude λ , and true North Polar Distance Δ , of the Sun's centre, and the true obliquity I , at any instant, are related to each other by the equation,

$$\cos \Delta = \sin \lambda \sin I,$$

and the tabular longitude $\lambda + \delta\lambda$, the tabular North Polar Distance $\Delta + \delta\Delta$, and the assumed obliquity $I + \delta I$, in the Nautical Almanac, for the same instant, by the equation,

$$\cos(\Delta + \delta\Delta) = \sin(\lambda + \delta\lambda) \sin(I + \delta I).$$

Hence neglecting powers of the errors $\delta\lambda$, $\delta\Delta$, δI , above the first,

$$\Delta\delta + \operatorname{cosec} \Delta \cos \lambda \sin I \delta\lambda + \operatorname{cosec} \Delta \sin \lambda \cos I \delta I = 0 \dots\dots\dots (A).$$

Now it is assumed that the changes of λ and I in the course of a year are in accordance with the theoretical calculations, and consequently that their values, as given in the Nautical Almanac, are affected, if by any, by constant errors, which it is proposed to find.

The actual errors of the Solar Tables in N.P.D. cannot be immediately derived from the errors in the columns of pages 280—282, because though mere errors of observation may be supposed eliminated in the mean result from a large number of observations, there may still remain uncorrected instrumental errors and errors of reduction. Representing therefore by a any error in N.P.D. taken from those columns, and by p the excess of the observed above the true N.P.D. we shall have,

$$\delta\Delta = (\text{Tabular N.P.D.} - \text{observed N.P.D.}) + (\text{observed N.P.D.} - \text{true N.P.D.}) = a + p;$$

and as we are ignorant of the causes to which p may be owing, it is assumed to be constant within the limits of the tropics. The formula used in page 287 is obtained by putting m for $\sin I \delta\lambda$, n for $\cos I \delta I$, and $a + p$ for $\delta\Delta$ in equation (A).

Instead of forming a separate equation from this formula for every different value of a , the whole number of observations is divided into twelve groups, the mean of the values of a in each group is considered to correspond to the day nearest the numerical mean of the days of observation in the group, and λ and Δ are taken for the mean noon of the mean day from the Nautical Almanac. In this manner twelve different equations were formed. The rest of the calculation for finding m , n , p , and the mean errors of the Sun's Tabular R.A., the Tabular value of the obliquity, and the assumed R.A. of the fundamental stars, requires no explanation additional to that given in pages 287 and 288.

The *Occultations of fixed Stars by the Moon and the Calculation of the Occultations* in pages 291—304, are sufficiently explained by the statements in pages xxviii and xxix, the same formulæ being used as for the Occultations of 1849.

OBSERVATIONS OF 1851.

The explanation of the printed observations of 1851 is in general the same as that of the observations of 1849 and 1850.

I. *Apparent Right Ascensions observed with the Transit.* Pages 306—341.

The Table of intervals of the wires from the mean of all in p. xxix was used throughout 1851.

The corrections for the forms of the Transit-pivots, which have been applied to the mean of the wires previous to the reduction to the meridian, were adopted on the following considerations. The details of the measures recorded in 1850 and their calculated results are given in pp. xxx—xxxiv. These apply only to the position of the Transit in which the Illumination is East. No measures were taken for the other position of the instrument until an attempt was made in 1852, which proved to be useless on account of the unsteadiness of one of the caps on which the dots are engraved. This cap had been clamped to a cylindrical piece of brass, which was screwed, but not firmly, to the

end of the pivot for the purpose of supporting the apparatus by which the Illumination is regulated. On discovering the cause of failure, the cap was altered so as to admit of being clamped to the pivot itself. Owing to the pressure of other occupation the next measures were deferred till April of 1854, when two sets were taken for each position of the instrument. The details of these measures will be given in a subsequent volume: it will suffice for the present purpose to adduce such of the results as are contained in the subjoined Table.

N.P.D.	Illumination East.		Illumination West.		N.P.D.	Illumination East.		Illumination West.	
	Measured Correction 1854.	Measured Correction 1850.	Measured Correction 1854.	Adopted Correction 1850.		Measured Correction 1854.	Measured Correction 1850.	Measured Correction 1854.	Adopted Correction 1850.
$-41,2$	$+0,12$	$+0,18$	$+0,65$	$+0,35$	70	$+0,36$	$+0,23$	$+0,31$	$+0,03$
$-39,3$	$+0,17$	$+0,07$	$+0,60$	$+0,30$	75	$+0,40$	$+0,26$	$+0,28$	$-0,02$
$-36,3$	$+0,17$	$-0,29$	$+0,60$	$+0,30$	80	$+0,42$	$+0,29$	$+0,25$	$-0,04$
$-34,4$	$+0,15$	$-0,35$	$+0,56$	$+0,26$	85	$+0,44$	$+0,31$	$+0,26$	$-0,02$
$+30$	$+0,16$	$+0,01$	$+0,39$	$+0,06$	90	$+0,44$	$+0,31$	$+0,31$	$+0,03$
35	$+0,19$	$+0,05$	$+0,36$	$+0,05$	95	$+0,42$	$+0,29$	$+0,35$	$+0,06$
40	$+0,21$	$+0,07$	$+0,35$	$+0,05$	100	$+0,41$	$+0,27$	$+0,38$	$+0,05$
45	$+0,24$	$+0,10$	$+0,38$	$+0,08$	105	$+0,41$	$+0,27$	$+0,40$	$+0,08$
50	$+0,26$	$+0,11$	$+0,36$	$+0,05$	110	$+0,42$	$+0,29$	$+0,40$	$+0,10$
55	$+0,28$	$+0,13$	$+0,34$	$+0,02$	115	$+0,44$	$+0,31$	$+0,40$	$+0,10$
60	$+0,31$	$+0,16$	$+0,33$	$+0,01$	120	$+0,45$	$+0,32$	$+0,41$	$+0,12$
65	$+0,34$	$+0,19$	$+0,36$	$+0,05$	125	$+0,48$	$+0,34$	$+0,43$	$+0,13$

The first four N.P.D. apply to Polaris and δ Ursæ Minoris below and above Pole.

The corrections adopted for 1851, 1852, and 1853, Illumination East, were deduced by simply distributing the differences between those of 1850 and 1854 in equal parts over the intermediate years. The adopted corrections of 1850, Illumination West, which have already been exhibited in p. xxxiv, were calculated on the following principles. As the change of the values from 1850 to 1854, assuming the measures to be exact, can only be ascribed to the wear of the pivots, and as in that interval the Illumination was West about double the time it was East, the effects of the wear were assumed to be in the same proportion. Now it will be seen by the above Table that if we except positions near the Pole, where tenths of seconds must correspond to very small arcs, the changes of the corrections for Illumination East from 1850 to 1854 do not in any case differ more than $0^s,01$ from the mean value $0^s,14$. The mean change for Illumination West would accordingly be $0^s,28$. And as from the nature of the case the correction must continually increase in the same direction, it has been assumed that in 1850 it was *less* by the above mean quantity than in 1854. The differences for Illumination West, as exhibited in the above Table, are somewhat larger than twice the corresponding differences for Illumination East. This is owing to the circumstance that the calculation which was employed took into account the actual change of *level* error by wear of material in the four years, it having been ascertained by further observation that $L_e - l$ changed from $+0'',36$ to $0'',01$ and $L_w - l$ from $-1'',85$ to $-2'',65$ in that interval. (See p. xxxii.) As the latter change is rather more than double the other, the above mean quantity was raised to $+0^s,30$. This quantity is the assumed increment of correction from 1850 to 1854 for Polaris and δ Ursæ Minoris.

The corrections for both positions of the instrument in 1850 having been calculated in the manner above described, the adopted corrections for 1851 are those of 1850 *plus* one-fourth the increments from 1850 to 1854, and are therefore as follows:

N.P.D.	Correction Illumination East.	Correction Illumination West.	N.P.D.	Correction Illumination East.	Correction Illumination West.
-41,2	+0,16	+0,43	70	+0,26	+0,10
-39,3	+0,09	+0,38	75	+0,29	+0,05
-36,3	-0,17	+0,38	80	+0,32	+0,03
-34,4	-0,22	+0,34	85	+0,34	+0,05
+30	+0,04	+0,14	90	+0,34	+0,10
35	+0,08	+0,12	95	+0,32	+0,13
40	+0,10	+0,12	100	+0,30	+0,13
45	+0,13	+0,15	105	+0,30	+0,16
50	+0,14	+0,12	110	+0,32	+0,17
55	+0,16	+0,10	115	+0,34	+0,17
60	+0,19	+0,09	120	+0,35	+0,19
65	+0,22	+0,12	125	+0,37	+0,20

It may be remarked that although the considerations by which the corrections of 1850 for Illumination West were deduced from those of 1854 may be somewhat precarious, the reduction of the observations can be affected only in a very slight degree by any error in the adopted differences, because they vary very little from the mean value 0",30, and have, therefore, nearly the same effect as clock-error or difference of meridians. At the same time the difference of correction for difference of N.P.D., which is of chief importance in the reduction of the observations, was shown by the measures for Illumination East to be almost exactly the same in 1850 as in 1854, and we may hence conclude that the *law* of the corrections in 1850 for Illumination West was nearly the same as in 1854, and that it is very approximately expressed by the adopted corrections.

The following are the determinations of the collimation errors used in the reduction of the transits of 1851.

The value used from the beginning of the year to the end of Feb. 15, was that obtained on Dec. 6, 1850, omitting the correction +0",36, which, as explained in p. xxxiv, was applied by mistake to the level errors of 1850. The correct value of the collimation error is $-1",08 + 0",36$, or $-0",72$.

April 22, 23 $\frac{1}{2}$ ^h, the error of collimation was found by Mr Breen with the collimating eye-piece.

Illumination East.

Mean of 8 readings, micrometer-wire coinciding with its image	.....	^{r.} 23,906
..... 10	<i>D</i>	23,822

Hence the value of b , the deviation of D eastward from the vertical plane, (see p. iii) is $17",06 \times 0,084$, or $+1",43$. And by levelling nearly at the same time $L_e = +1",42$. Hence $L_e - b = -0",01$, which, as explained in p. xxxii, is the adopted collimation error of D . Consequently the concluded error of collimation of the mean of the wires, inclusive of the correction for aberration, is $0",01 - 0",18 - 0",90$, or $-1",09$, which to the nearest tenth of a second is used from Feb. 17.

May 6, 5^h. The Transit was reversed by Mr Breen. The South mark was very steady and well-defined, and the collimator placed in the North shutter-opening was steady throughout. A cross-wire for more accurate bisection was inserted by Mr Breen in the collimator. The pivots of the Transit had been well cleaned and oiled. The coincidence of the micrometer-wire with D was not taken after the reversion.

Illumination East.

Mean of 12 readings, micrometer-wire coinciding with D	.....	^{r.} 23,823
..... 12	bisecting South mark	..... 23,034
..... 12	bisecting North mark	..... 22,631

Illumination West.

Mean of 12 readings, micrometer-wire bisecting North mark.....	^{r.} 24,731
..... 12 bisecting South mark	24,473
Reading for the line of collimation by South mark	23,754
..... North mark	23,681
..... true line of collimation	23,718
..... coincidence with <i>D</i>	23,823

As the readings increase towards the micrometer-head, which after the reversion was eastward, *D* was to the East of the true line of collimation by 0",105. Hence correction for error of collimation of $D = \pm 17",06 \times 0",105 = \pm 1",79$, according as the Illumination is East or West. From this value, the correction, as it would be given by the collimating eye-piece, was inferred as follows. By calculations in p. xxxii,

$$\frac{a+b}{2} = L_w + 1",85 = L_e - 0",36;$$

and by levellings on May 5 and May 6, $L_e = +1",30$ and $L_w = -0",83$. Hence, the mean value of $\frac{a+b}{2}$ is $+0",98$. The mean difference between simultaneous determinations of collimation error by the meridian marks and by the collimating eye-piece was deduced from two experiments made in 1847 (see Vol. XVII. pp. xxviii and xlvii) and one in 1849 recorded in p. v of this Introduction. If *c* be the collimation error, Illumination East, by the marks, and *c'* that by the collimating eye-piece, then, *c'* being equal to $\frac{a-b}{2}$, we have the following results:

Date.	<i>a</i>	<i>b</i>	<i>c'</i>	<i>c</i>	<i>c' - c</i>
1847 Feb. 11	+1",07	-4",13	+2",60	+3",27	-0",67
Dec. 28	-0",31	-4",46	+2",08	+3",29	-1",21
1849 Aug. 24	+3",29	+2",39	+0",45	+1",01	-0",56

The mean value of $c' - c$ is $-0",81$, which being applied to the above collimation error of *D* for Illumination East, gives $\frac{a-b}{2} = +1",79 - 0",81 = +0",98$. Hence

$$a = \frac{a+b}{2} + \frac{a-b}{2} = +1",96;$$

and as it has been shown that in consequence of the corrections for the forms of the pivots, the collimation error of *D* to be used for Illumination West is $L_w - a$, its value is $-0",83 - 1",96$, or $-2",79$. Hence, as above, the concluded collimation error

$$= -2",79 - 0",18 + 0",90 = -2",07.$$

The value $-2",4$ employed from May 6 to July 29 was obtained through a mistake in calculation: the difference is too slight to affect sensibly the reduction of the observations.

August 27, 23 $\frac{1}{2}$ ^h, I obtained the error of collimation by the collimating eye-piece. The wire *D* was so close to its image that the two were judged to be in contact, and the micrometer-wire was placed as nearly as possible so as to be bisected by the line of contact.

Illumination West.

Mean of 6 readings, micrometer-wire coinciding with its image	^{r.} 23,837
..... 6 <i>D</i>	23,871

Hence $a = +0",034 = +0",58$ in arc. And by levelling nearly at the same time $L_w = -1",95$. Consequently, $L_w - a = -1",95 - 0",58 = -2",53$, which is the adopted error of collimation of *D*, and the concluded error of collimation $= 1",95 - 0",18 + 0",90 = -1",81$. This correction is used from August 2 to the end of the year, the foregoing value of $L_w - a$ being little different from the preceding one, and from the next following, which was not obtained till April 7, 1852.

Level Errors in 1851.

* * See page vi.

Time of Levelling.	Level Error.	Position of Illum. End of Axis.	Temperature.	Time of Levelling.	Level Error.	Position of Illum. End of Axis.	Temperature.	Time of Levelling.	Level Error.	Position of Illum. End of Axis.	Temperature.
Jan. 6. 2	+ 3,42	East	°	May 5. 2	+ 1,30	East	47	Sept. 15. 2	- 0,95	West	59
13. 2	+ 3,54	—	47	6. 6½	- 0,83	West	46	24. 0½	- 1,34	—	63
21. 2	+ 3,87	—	47	16	- 0,90	—	—	29. 2	- 1,21	—	54
28. 2	+ 4,07	—	45	20. 2	- 1,52	—	54	Oct. 6. 2	- 0,56	—	55
Feb. 3. 2	+ 3,47	—	40	26. 23	- 1,95	—	52	13. 2	- 0,57	—	59
11. 2	+ 2,51	—	43	June 9. 2	- 2,68	—	56	21. 2	- 0,17	—	58
17. 2	+ 3,32	—	40	16. 2	- 2,25	—	62	27. 2	+ 0,21	—	55
25. 2	+ 2,68	—	45	23. 2	- 1,47	—	61	Nov. 3. 2	+ 0,31	—	43
Mar. 4. 3	+ 2,77	—	45	July 3. 2	- 1,85	—	64	13. 3	+ 0,44	—	45
10. 3	+ 2,08	—	40	10. 2	- 1,99	—	61	17. 3	+ 0,07	—	35
17. 3	+ 2,28	—	43	30. 22	- 0,96	—	61	25. 2	+ 0,94	—	41
27. 2	+ 2,77	—	47	Aug. 11. 2½	- 0,65	—	68	Dec. 2. 2	+ 1,27	—	39
Apr. 1. 23	+ 2,25	—	47	18. 2	- 1,30	—	63	10. 2	+ 1,40	—	52
14. 2	+ 2,46	—	46	25. 2	- 1,01	—	62	11. 2	+ 1,64	—	49
21. 2	+ 2,05	—	—	27. 23	- 1,95	—	59	23. 22	+ 0,93	—	40
22. 23½	+ 1,42	—	57	Sept. 8. 2	- 1,14	—	57				

* * In the reduction of the observations the above values of level error are taken to the nearest tenth of a second.

The level error of April 21, which was used on April 18, 19, and 21, is omitted by mistake in p. 316. The result of the levelling of Aug. 27 was confirmed by trial an hour after. The levelling on Dec. 10 was unsatisfactory, the bubble changing and the air of the Transit-room being in motion. On this account the levelling was repeated the next day. On Dec. 23, eight sets of readings were taken, six being the usual number. The level error used from Dec. 20, + 1",0, is that given by the last six readings.

The following is a list of corrections for the apparent inequality of the radii of the pivots, calculated in the manner explained in Vol. X. p. xxviii, and continued from those given in p. li of Vol. XVII.

Date of Reversion.	Correction Illum. E.	Date of Reversion.	Correction Illum. E.	Date of Reversion.	Correction Illum. E.
1849, Feb. 28	..... - 0,45	1850, Apr. 13	..... - 0,59	1850, July 16	..... - 0,41
Aug. 24	..... - 0,51	May 15	..... - 0,53	1851, May 5	..... - 0,49
1850, Apr. 1	..... - 0,57*	June 19	..... - 0,57		

* The level error being supposed constant from April 1 to April 8.

The above values indicate decidedly an increase in the apparent inequality of the pivots since the end of 1847, the greatest part of which is probably due to the wear of the pivots at the points to which the feet of the level are always applied, the Telescope being horizontal and looking southward during each levelling. No use has been made of the above corrections, the effects of the forms of the pivots, both on the position of the Transit and on the indications of the level, being considered to be fully taken into account in the corrections calculated in the manner explained in p. xxxii.

Calculation of Azimuth Errors in 1851.

* * See page ix.

Approximate Mean Time of observation.	Star.	Seconds of transit corrected for Collimation and Level Errors.	Correction for rate of Clock.	Seconds of the Star's assumed R.A.	Azimuthal Correction of the Interval between the transits.	Value of $h'-h$.	Azimuth Error.	Remarks.
Jan. 9. 4 9. 6	Polaris α Arietis	34,32 54,26	+ 0,05	28,92 46,71	- 2,20	+ 1,562	- 1,41	
27. 22 27. 23	δ Ursæ Minoris Aldebaran	52,02 11,35	+ 0,07	8,94 28,94	+ 0,60	+ 0,682	+ 0,88	
Feb. 4. 9 4. 9	α Orionis δ Ursæ Min. SP.	40,38 42,90	+ 0,03	6,77 10,33	+ 1,01	+ 0,693	+ 1,46	
15. 8 15. 8	α Orionis δ Ursæ Min. SP.	25,11 31,31	+ 0,03	6,64 12,95	+ 0,08	+ 0,693	+ 0,12	
22. 7 22. 8	α Orionis δ Ursæ Min. SP.	16,09 24,96	+ 0,03	6,54 15,11	- 0,33	+ 0,693	- 0,48	The mean of these is used from Feb. 21.
22. 8 22. 8	δ Ursæ Min. SP. Sirius	24,96 44,91	+ 0,02	15,11 35,43	+ 0,35	- 0,675	- 0,52	
Mar. 4. 1 4. 2	α Andromedæ Polaris	35,53 44,87	+ 0,06	40,19 49,10	- 0,49	- 1,557	+ 0,32	The mean of these, viz. - 0",45, is used from Mar. 11.
13. 2 13. 14 14. 2	Polaris Polaris SP. Polaris	29,24 28,56 25,02			+ 0,68 + 3,54	+ 3,157 - 3,157	+ 0,22 - 1,12	
20. 1 20. 13	Polaris Polaris SP.	14,79 15,34	+ 0,59	43,25 43,18	- 1,21	+ 3,157	- 0,38	
Apr. 5. 12 5. 12	Polaris SP. * Spica	51,98 33,66	+ 0,01	41,39 22,11	- 0,97	- 1,571	+ 0,62	
12. 12 12. 12	Polaris SP. Spica	40,41 23,77	+ 0,01	41,62 22,16	- 2,83	- 1,571	+ 1,80	
18. 23 19. 11	Polaris Polaris SP.	33,61 31,46	+ 0,64	43,00 43,14	+ 1,65	+ 3,157	+ 0,52	
27. 22 28. 10	Polaris Polaris SP.	25,25 28,80	+ 0,66	45,11 45,28	- 4,04	+ 3,157	- 1,28	Polaris at three wires.
May 6. 10 6. 11	Polaris SP. Arcturus	15,82 22,53	+ 0,06	48,97 53,29	- 2,45	- 1,593	+ 1,54	Arcturus at 5 wires. This value is not used, the next being preferred.
8. 10 8. 22	Polaris SP. Polaris	13,37 16,88	+ 0,74	49,74 49,91	- 4,08	- 3,157	+ 1,29	
14. 9 14. 21 15. 9	Polaris SP. Polaris Polaris SP.	5,47 12,01 4,66*			- 6,54 + 7,35	- 3,157 + 3,157	+ 2,07 + 2,33	Mean = + 2",20. * Deduced from 4 wires, the Telescope having received a blow between the 4th and 5th.
15. 9 15. 9	Polaris SP. Spica	2,61† 38,26	+ 0,01	53,40 22,19	- 4,45	- 1,571	+ 2,83	† Deduced from the remaining 3 wires. The blow appears by this result to have produced no sensible effect.
14. 21 15. 9	Polaris Polaris SP.	12,01 3,79‡			+ 8,22	+ 3,157	+ 2,60	‡ Deduced from the seven wires. The mean between + 2",07 and + 2",60, viz. + 2",34, is adopted.
31. 8 31. 8	Polaris SP. Spica	53,24 12,05	+ 0,02	3,75 22,13	- 0,45	- 1,571	+ 0,29	
June 16. 7 16. 7	Polaris SP. Spica	40,60 47,22	+ 0,02	15,79 22,01	- 0,44	- 1,571	+ 0,27	

Approximate Mean Time of observation.	Star.	Seconds of transit corrected for Collimation and Level Errors.	Correction for rate of Clock.	Seconds of the Star's assumed R.A.	Azimuthal Correction of the Interval between the transits.	Value of $h'-h$.	Azimuth Error.	Remarks.
June 23. 7 23. 12	Polaris SP. μ^1 Sagittarii	34,32 7,69	+	21,04 53,26	- 1,44	- 1,563	" + 0,92	
Aug. 3. 20 3. 21	α Orionis δ Ursæ Min. SP.	21,04 51,39	+ 0,03	6,40 37,02	+ 0,24	+ 0,693	+ 0,35	The mean of these two, viz. + 0",45 is used from July 14.
3. 21 3. 22	δ Ursæ Min. SP. Sirius	51,39 49,26	+ 0,02	37,02 34,54	- 0,37	- 0,675	+ 0,55	
12. 4 12. 7	Polaris SP. δ Ophiuchi	4,40 36,90	+ 0,16	0,35 33,86	+ 0,85	- 1,576	- 0,54	
19. 3 19. 3	Polaris SP. Spica	55,70 14,61	+ 0,01	4,91 21,31	- 2,52	- 1,571	+ 1,60	
25. 3 25. 3	Polaris SP. Spica	51,77 6,14	+ 0,01	8,61 21,25	- 1,74	- 1,571	+ 1,11	
Sept. 2. 2 2. 5	Polaris SP. δ Ophiuchi	48,15* 6,98	+ 0,20	12,89 33,54	+ 1,62	- 1,576	- 1,03	* The mean from the observations with and without the micrometer.
10. 2 10. 4	Polaris SP. ϵ Bootis	32,79 49,77	+ 0,10	16,26 28,89	- 4,45	- 1,600	+ 2,78	Neither of these is used, both observations of Polaris having been made under unfavorable circumstances.
11. 2 11. 2	Polaris SP. Spica	28,39 40,32	+ 0,02	16,61 21,11	- 7,45	- 1,571	+ 4,74	
12. 2 12. 14 13. 2	Polaris SP. Polaris Polaris SP.	29,57 35,73 31,81			- 6,16 + 3,92	- 3,157 + 3,157	+ 1,95 + 1,24	Mean = + 1",60, which is used from Sept. 8.
Oct. 8. 0 8. 12	Polaris SP. Polaris	55,97 60,06	+ 0,81	23,28 23,28	- 4,90	- 3,157	+ 1,55	
15. 23 16. 11 16. 23	Polaris SP. Polaris Polaris SP.	42,23 49,64 41,44			- 7,41 + 8,20	- 3,157 + 3,157	+ 2,35 + 2,60	Mean = + 2",47, which is used from Oct. 14.
31. 22 31. 22	Polaris SP. Spica	13,47 18,46	+ 0,02	21,83 21,29	- 5,55	- 1,571	+ 3,53	
Nov. 13. 21 14. 9	Polaris SP. Polaris	51,29 57,51	+ 0,80	17,88 17,64	- 7,26	- 3,157	+ 2,30	
29. 1 29. 2	α Ophiuchi δ Ursæ Minoris	17,95 13,01	+ 0,06	1,45 53,05	- 3,52	- 0,679	+ 5,18	The mean of these, viz. + 4",18, is used from Nov. 21.
Dec. 2. 8 2. 11	Polaris Aldebaran	25,15 36,88	+ 0,22	8,04 25,98	+ 4,99	+ 1,567	+ 3,18	
11. 1 11. 13	δ Ursæ Minoris δ Ursæ Min. SP.	50,35 44,14	+ 0,72	50,50 50,40	+ 5,39	+ 1,375	+ 3,92	Used to the end of the year, no later observations of Polaris or δ Ursæ Minoris having been taken.

*. * In the reduction of the observations the above values of the azimuth error are taken to the nearest tenth of a second.

The assumed apparent R.A. in the above calculations are the R.A. of the Nautical Almanac, corrected by the small differences contained in the following Table, and in the cases of Polaris and δ Ursæ Minoris, by the small quantities in pages 478 and 479 of the Nautical Almanac for 1851.

Assumed Mean R.A. Jan. 1, 1851, of the Fundamental Stars.

Star.	Assumed Mean R.A. Jan. 1, 1851.	Excess above Naut. Alm. 1851.	Star.	Assumed Mean R.A. Jan. 1, 1851.	Excess above Naut. Alm. 1851.
α Andromedæ..	<i>h. m. s.</i> 0. 0. 41,71	+ 0,09	Arcturus.....	<i>h. m. s.</i> 14. 8. 52,02	+ 0,09
β Ceti.....	0. 36. 6,49	+ 0,11	ϵ Bootis.....	14. 38. 28,82	+ 0,08
Polaris.....	1. 5. 19,93	+ 1,52	α^s Libræ.....	14. 42. 38,59	+ 0,02
α Arietis.....	1. 58. 47,07	+ 0,13	α Coronæ.....	15. 28. 22,84	+ 0,09
α Ceti.....	2. 54. 29,74	+ 0,03	α Serpentis....	15. 36. 55,93	+ 0,10
Aldebaran.....	4. 27. 22,58	+ 0,07	δ Ophiuchi....	16. 6. 32,52	+ 0,11
Rigel.....	5. 7. 22,75	+ 0,06	Antares.....	16. 20. 16,77	+ 0,08
β Tauri.....	5. 16. 52,61	+ 0,06	α Herculis.....	17. 7. 51,36	+ 0,14
α Orionis.....	5. 47. 6,40	+ 0,05	α Ophiuchi.....	17. 28. 1,22	+ 0,14
Sirius.....	6. 38. 34,94	- 0,04	μ^1 Sagittarii....	18. 4. 51,21	+ 0,10
Castor.....	7. 25. 5,22	+ 0,10	δ Ursæ Minoris.	18. 20. 23,94	- 0,41
Procyon.....	7. 31. 30,06	+ 0,18	β Lyræ.....	18. 44. 34,78	+ 0,10
Pollux.....	7. 56. 11,49	+ 0,01	ζ Aquilæ.....	18. 58. 33,78	+ 0,15
ϵ Hydræ.....	8. 38. 53,00	+ 0,04	γ Aquilæ.....	19. 39. 10,58	+ 0,09
α Hydræ.....	9. 20. 15,93	+ 0,10	α Aquilæ.....	19. 43. 30,78	+ 0,06
Regulus.....	10. 0. 25,97	+ 0,06	β Aquilæ.....	19. 47. 59,65	+ 0,08
δ Leonis.....	11. 6. 10,75	+ 0,12	α^s Capricorni...	20. 9. 47,04	+ 0,11
β Leonis.....	11. 41. 27,45	+ 0,13	β Aquarii.....	21. 23. 42,80	+ 0,14
β Corvi.....	12. 26. 34,18	+ 0,18	α Aquarii.....	21. 58. 7,79	+ 0,12
Spica.....	13. 17. 20,94	+ 0,06	α Pegasi.....	22. 57. 20,53	+ 0,08

The assumed mean R.A. have been deduced from the mean R.A. concluded from the observations of 1850 in the manner stated in p. xii. The mean excess above the R.A. of the Nautical Almanac (excluding Polaris and δ Ursæ Minoris) is +0^s,090, which is 0^s,001 greater than the mean excesses of the assumed R.A. of 1849 and 1850.

On April 9, no clock-stars having been observed with the Moon, δ Geminorum was used for clock-error, the R.A. of the Nautical Almanac being corrected by +0^s,09.

The following processes were adopted for eliminating errors arising from difference of personal equation. Observations of Mr Breen (B) and Mr Todd (T) in no instance occur in the same group; but when a clock-rate was to be inferred from observations of these two observers in different groups, an allowance for difference of personal equation, (which appeared to be a variable quantity), was made as nearly as it could be by estimation. Whenever such allowance was made, the amount is given in the notes. As it appeared from what is stated in page xiv that the difference of personal equation of T and myself (C) was very small, no allowance was made for it in calculating either the rate or the error of the clock in the mixture of the observations of C and T which occur from Aug. 3 to midnight of Aug. 18. Two clock-errors of T, deduced from observations on Aug. 13 and Aug. 18 under bad circumstances and put in brackets, were not made use of. Subsequently to the above date the observations of C and T are reduced independently, excepting that the clock's rate is inferred from the observations of one of the observers, or is a mean derived from two rates for the same epoch given by their observations taken separately. T's observation of the Sun on Sept. 6 was necessarily grouped with the preceding observations of C without taking account of difference of personal equation.

The difference of personal equation of C and T, as inferred from the separate reductions of their observations, was 0^s,04 on Aug. 21, 0^s,08 on Aug. 23, and 0^s,15 on Sept. 13, T observing earlier than C by these quantities. As the observations were reduced independently, these differences are actually taken into account, so that the note to the transits of β Aquarii and Neptune on Aug. 21 was needless, and the clock-error by the star should not have been put in brackets.

The transits from Aug. 26 to Sept. 4 marked by the Italic *B*, were taken by Mr John William Breen, to whom I gave permission to observe for the sake of practice. These observations and those of C in the same interval are reduced independently, in the manner already stated with reference to the observations of C and T, excepting that *B*'s observations on Aug. 30 are corrected by +0^s,02 for difference of personal equation, because on that day he observed only one clock-star. This correction was ascertained by the following comparisons of Clock-errors reduced to the same epochs:

Day of Observation.	Clock's Loss by B.	Number of B's Observations.	Clock's loss by C.	Number of C's Observations.	Excess of C's Clock-error.	Assumed Weight.
Aug. 28	18,22	3	18,14	4	-0,08	3
.. 30	20,88	1	20,73	3	-0,15	1
Sept. 3	27,15	6	27,21	3	+0,06	4

Taking the weights into account the mean excess of the clock's loss by C is $-0^s.02$, that is, C observed *later* than B by $0^s.02$.

The corrections from the apparent to the mean R.A. in pages 344—357 were calculated in the same manner as those of 1849 (see pages xv and xxi), and the Annual Variations in pages 348—357 were calculated as stated in p. xxii. excepting that the Logarithmic constant of the formula was 0,12612.

II. *Apparent North Polar Distances observed with the Mural Circle.* Pages 360—388.

The following Table contains the results of microscope readings taken in 1851 to ascertain the corrections for Runs.

Time of Observation, 1851.	Excess of micrometer-reading for preceding division above micrometer-reading for following division, for each microscope.						Corr. for Runs for 5'.	Temperature.	Time of Observation, 1851.	Excess of micrometer-reading for preceding division above micrometer-reading for following division, for each microscope.						Corr. for Runs for 5'.	Temperature.
	A	B	C	D	E	F				A	B	C	D	E	F		
Jan. 13. ^a 2	0,0	+4,6	-1,9	+0,3	+2,0	+3,0	+8,0	47	July 18. ^h 1	+0,9	+4,2	-2,8	-0,5	+1,0	+2,1	+4,9	61
20	-0,6	+4,2	-2,6	+1,2	+2,4	+3,9	+8,5		21. 2	-0,7	+3,9	-3,4	+0,6	+2,9	+1,0	+4,3	
31. 2	+0,9	+4,8	-1,9	+1,1	+3,0	+2,5	+10,4		2	+1,1	+3,8	-2,8	+0,1	+1,0	+2,5	+5,7	64
	+1,2	+4,9	-2,3	+0,9	+2,2	+4,2	+11,1	40	26. 7	-0,8	+3,6	-2,6	+0,3	+2,1	+2,5	+5,1	
Feb. 9. ²²	+0,6	+4,5	-1,6	+1,9	+2,8	+2,6	+10,8	41	Aug. 2. 11	-0,1	+4,0	-3,5	+0,1	+2,4	+2,2	+5,1	
12. 0	+1,0	+5,1	-2,5	+0,1	+2,8	+3,0	+9,5	43	11	-0,3	+3,7	-3,3	-0,6	+1,5	+2,6	+3,6	
25. 2	+0,9	+4,2	-1,9	-0,1	+2,4	+1,5	+7,0	45	11. 1	+0,4	+3,8	-2,7	+0,2	+1,4	+1,3	+4,4	64
	+0,8	+4,3	-2,7	+0,6	+2,3	+2,3	+7,6		1	+1,2	+3,6	-2,9	+0,1	+1,7	+2,3	+6,0	
Mar. 11. 1	+1,2	+4,1	-2,5	+1,0	+2,6	+2,6	+9,0	40	22. 21	-1,0	+4,1	-2,9	-0,9	+1,9	+1,1	+2,3	66
23	+0,1	+4,7	-1,5	+2,1	+2,5	+3,1	+11,0	39	21	0,0	+3,9	-3,2	-0,1	+1,4	+1,5	+3,5	
20. 2	+1,5	+4,4	-2,5	+1,5	+2,3	+2,3	+9,5	52	Sep. 16. 5	-0,2	+3,8	-3,0	+0,5	+1,7	+2,7	+5,5	
	+0,2	+5,0	-3,0	+0,4	+1,9	+3,9	+8,4		22. 1	+0,6	+4,1	-2,2	+0,7	+2,3	+2,0	+7,5	60
27. 3	+1,1	+4,5	-2,4	+0,3	+2,6	+2,7	+8,8		1	+0,2	+5,5	-2,4	0,0	+1,6	+2,3	+7,2	
Apr. 7. 10	+1,7	+5,2	-2,1	+1,1	+2,4	+2,9	+11,2		Oct. 9. 4	+0,6	+4,9	-2,4	+0,1	+2,7	+2,6	+8,5	51
22. 7	+1,7	+4,1	-2,5	+0,7	+2,3	+2,6	+8,9	53	23	-0,5	+4,1	-2,3	-0,2	+1,3	+2,2	+4,6	58
	+0,5	+3,4	-1,5	+0,1	+1,8	+2,7	+7,0		23	-0,1	+3,4	-1,6	+1,1	+2,0	+2,0	+6,8	
May 5. 10	+1,2	+4,3	-1,8	+0,8	+2,8	+3,1	+10,4	39	22. 22	+0,7	+3,8	-3,0	+1,0	+2,0	+2,4	+6,9	54
10	+0,4	+3,8	-1,7	+0,8	+3,2	+2,6	+9,1		22	+0,5	+3,5	-3,0	+0,9	+1,8	+2,3	+6,0	
13. 8	+1,1	+3,6	-2,2	+1,7	+2,6	+2,6	+9,4	50	27. 2	+1,0	+4,1	-2,6	+0,3	+1,2	+2,7	+6,7	55
8	+0,6	+4,4	-2,0	+1,5	+2,6	+3,1	+10,2		22	+1,3	+4,4	-1,6	-0,8	+2,7	+1,1	+7,1	51
28. 2	-1,0	+3,3	-3,1	+0,4	+1,6	+2,2	+3,4	58	Nov. 6. 2	+1,6	+4,0	-2,7	-0,1	+1,6	+2,5	+6,9	43
	+0,4	+3,8	-3,1	+0,1	+2,4	+3,4	+7,0		12. 23	+1,6	+5,2	-2,0	+1,1	+2,0	+3,5	+11,4	41
June 14. 0	+1,8	+5,0	-4,0	+0,1	+1,6	+2,6	+7,1	61	13. 22	+2,7	+3,9	-1,4	+1,5	+1,4	+2,1	+10,2	42
17. 0	+1,3	+4,2	-2,9	-1,3	+2,0	+2,2	+5,5	59	15. 0	+1,1	+3,6	-1,7	-0,5	+2,2	+3,3	+8,0	40
0	+1,0	+3,7	-3,9	+0,5	+1,9	+2,4	+5,6		19. 23	+1,7	+4,4	-2,1	+1,0	+1,7	+2,3	+9,0	36
23. 2	+0,9	+3,4	-3,4	+0,4	+2,7	+1,8	+6,2	61	21. 22	+1,2	+4,1	-2,1	+0,7	+2,8	+3,3	+10,0	39
	+0,2	+3,1	-3,5	-0,2	+1,5	+3,0	+4,1		Dec. 2. 10	+2,3	+4,5	-2,0	+0,7	+1,8	+2,6	+9,9	38
July 3. 2	+1,0	+4,6	-2,7	-1,5	+2,0	+2,9	+6,3	63	10. 13	+0,8	+4,1	-2,4	+2,4	+2,0	+2,5	+9,4	49
5. 2	-0,2	+4,1	-3,0	-0,3	+1,2	+1,9	+3,7	62	13	+1,4	+3,9	-2,4	+3,0	+1,4	+3,3	+10,6	
10. 2	+0,1	+3,6	-2,7	+0,1	+1,8	+2,0	+4,9	60	24. 11	+1,6	+4,8	-1,8	+0,6	+1,8	+2,8	+9,8	40
2	-0,1	+3,4	-2,8	-0,8	+2,1	+3,1	+4,9		11	+2,2	+4,0	-2,6	+0,3	+1,3	+4,4	+9,6	
18. 1	0,0	+3,4	-2,7	0,0	+0,9	+1,6	+3,2	61									

The Runs of Oct. 9 ^{4h}, are not used because after they were taken an irregularity was noticed in the reading of Microscope E. owing apparently to disarrangement of the wires caused by pushing the eye-piece too far in to suit the observer's sight. The Runs of Oct. 9, ^{23h}, were taken after the eye-piece had been pulled out a little. The Run of Microscope E was found at 0^h of Oct. 10 to be $+1''.3$, shewing that the readings were steady. Between Oct. 17 and Oct. 22 the Microscope was removed to be rectified.

The correction for Runs used from June 9 is the mean of the three obtained on June 14 and 17; that used from Nov. 10 is the mean of the three of Nov. 12, 13, and 15; and that used from Nov. 18 is the mean of those of Nov. 19 and 21.

The following measures were taken by Mr Todd to determine the value of 1" of the micrometer of the Circle Telescope.

Time of Observation 1851.	Micrometer reading.	Pointer reading.	Microscope A	B	C	D	E	F	Correction for Runs.	Concluded Circle reading.	Difference.
Oct. 27 ^h 22	35,000	156.20	4.44,9	45,0	45,1	45,0	42,9	44,2	-0,4	156.24.44,45	' "
	5,000	156.10	4.19,4	19,9	19,4	19,5	15,1	19,9	-1,0	156.14.18,70	10.25,75
	35,000	156.20	4.44,2	44,8	44,6	44,6	42,0	44,5	-0,4	156.24.44,05	10.25,35
Nov. 12. 22	12,866	246.20	2.43,5	41,2	45,8	40,9	38,1	44,0	+6,2	246.22.43,27	2.25,50
	19,872	246.25	0.10,2	8,7	10,3	8,1	4,6	10,4	+0,3	246.25.8,77	3.41,69
	30,489	246.24	4.50,2	46,9	53,1	48,9	46,3	49,2	+8,7	246.28.50,46	
Nov. 13. 22	5,000	156.10	4.19,3	19,0	19,6	18,1	15,0	19,9	-1,4	156.14.18,25	5.12,52
	20,000	156.15	4.31,9	31,5	31,7	30,6	27,3	32,6	-1,0	156.19.30,77	5.12,61
	35,000	156.20	4.44,0	44,0	49,9	44,1	41,7	45,1	-0,5	156.24.43,38	5.12,31
	20,000	156.15	4.32,9	31,4	32,1	30,8	27,2	33,0	-1,0	156.19.31,07	5.12,34
	5,000	156.10	4.20,0	19,7	20,1	17,9	15,1	21,0	-1,4	156.14.18,73	

The measures of Oct. 27 and Nov. 13 were taken by means of the meridian mark in the usual way. For those of Nov. 12 the collimating eye-piece was used in the manner described in p. xlv. The corrections for Runs, (which on Oct. 27 and Nov. 13 were negative), were derived from the values for 5' given in the foregoing Table. The micrometer-readings for coincidence of the micrometer-wire with its image on Nov. 12 are the means of 8, 8 and 12 readings respectively, and the microscope readings are the means of two sets of bisections. The value of the micrometer-revolution given by a comparison of the first and third measures of that day is 20",836. The mean of the differences of Oct. 27 gives 1"=20,852, and the mean of those of Nov. 13 gives 1"=20",830. It was thought preferable upon the whole to adopt the mean of the two last values, viz. 20",841.

It may be remarked that since 20" is the micrometer-reading for the middle of the field, the measures of Nov. 13 shew that the value of the micrometer-revolution is the same, whether the micrometer-readings correspond to positions of the wire in the upper half, or in the lower half, of the field.

On May 23 Mr Todd attempted to determine the value of the micrometer-revolution by bisections of Polaris, allowing for its change of N.P.D. by diurnal motion. The reductions of these observations (in p. 373) shew that the bisections were not sufficiently accordant for this purpose.

Zenith Points obtained in 1851 with the Collimating Eye-piece.

Time of Observation.	Seconds of Zenith Point.	Time of Observation.	Seconds of Zenith Point.	Time of Observation.	Seconds of Zenith Point.
Jan. 6. ^h 5	15,68	June 23. ^h 2	33,53	Oct. 22. ^h 21	11,05
13. 2	15,60	July 3. 2	32,93	21½	11,39
20.	15,71	10. 2	32,63	22	11,19
31. 2	16,45	18. 1	33,07	27. 1	11,01
Feb. 9. 22	15,48	21. 2	32,95	1	(10,77)
25. 2	15,97	26. 7	33,05	1	(11,55)
Mar. 11. 22	32,48	Aug. 2. 10	32,75	Nov. 6. 2	11,36
20. 22	32,70	11. 1	34,02	12. 22	11,42
27. 3	32,19	22. 22	33,31	22½	(11,80)
Apr. 7. 10	32,60	Sept. 10.	33,87	23	(11,65)
22. 7	33,93	16. 5	33,10	21. 22	11,82
7	32,73	17. 23	33,70	Dec. 2. 10	10,83
May 5. 10	33,29	22. 1	33,22	10. 13	11,09
13. 8	33,51	Oct. 9. 4	(13,05)	24. 11	10,47
28. 2	33,46	23	11,68		
June 16.	33,00	10. 0	10,09		

On Feb. 9, the mercury was unsteady and the wire and its image could not both be well seen; and on Oct. 9, at 23^h, the microscope readings were doubtful, the circle dripping with moisture. These notes were inadvertently omitted in pages 363 and 382.

The Runs used in calculating the Zenith Points of 1851 are the same as those adopted for the reduction of the observations, and not as in former years the Runs obtained with the Telescope directed to the Nadir. On March 1 and on Oct. 9 the Microscopes were re-adjusted, the Circle having been removed from the wall. A Zenith Point was taken on March 2 before the adjustment of the wires, and could not therefore be used. That taken by myself on Oct. 9, at 4^h, soon after replacing the Circle, is not used. The Zenith Point of Oct. 10, being apparently affected by an irregularity of Microscope E to the same amount as the concluded Circle readings for the observations of that day, is only used for those observations. As this discordance was not perceptible before or after Oct. 10, the second of the Zenith Points obtained on Oct. 9 is used during Oct. 11—17. The mean of the Zenith Points of Sept. 16 and 17 is adopted for Sept. 13—19, and the mean of the three taken on Oct. 22 is used on Oct. 22 and 24. Of those taken Oct. 27, only the first is used, the micrometer-readings shewing that for the other two the micrometer-wire was too distant from the centre of the field. (These two ought not to have been inserted in p. 383.) For the same reason no use was made of the second and third Zenith Points of Nov. 12, which were calculated from measures taken on that day for the determination of the value of the micrometer-revolution, the particulars of which are already given.

The corrections from the Apparent to the Mean N.P.D. and the Annual Variations in pages 390—401, were calculated in the same manner as those of 1849, excepting that the logarithmic constant of the formula for the Annual Variation was 1,30221.

Mean Excess for each Star of the adopted Zenith Points above the Zenith Points given by direct and reflection observations in the year 1851.

* * * See page xxii.

Star.	Zen. Dist. South.	No. of Obs.	Mean value of M—Z.	Star.	Zen. Dist. South.	No. of Obs.	Mean value of M—Z.
δ Ursæ Minoris SP.	- 41 . 11	3	- 0,65	ζ Geminorum	+ 31 . 26	2	+ 2,19
Polaris SP.	39 . 16	7	- 1,19	Arcturus	32 . 15	3	+ 1,03
Polaris	36 . 18	5	- 0,12	Aldebaran	36 . 1	3	+ 0,49
δ Ursæ Minoris . . .	34 . 23	1	- 0,74	β Leonis	36 . 49	1	- 1,02
50 Cassiopeiæ	19 . 29	1	- 1,34	γ Tauri	36 . 57	2	+ 0,91
λ Draconis	17 . 57	1	- 0,59	11 Orionis	37 . 1	1	+ 0,85
3 Draconis	15 . 21	1	- 0,95	α Herculis	37 . 39	1	+ 0,39
4 Cephei	13 . 54	2	+ 0,23	α Pegasi	37 . 48	2	+ 0,19
δ Ursæ Majoris . . .	5 . 39	1	+ 0,53	ζ Aquilæ	38 . 34	1	+ 1,21
ε Ursæ Majoris . . .	4 . 33	1	+ 0,12	θ Delphini	39 . 25	1	+ 0,99
ε Cephei	4 . 6	1	- 1,18	Regulus	39 . 31	3	+ 0,30
i Persei	- 2 . 57	2	+ 0,96	α Ophiuchi	39 . 32	2	+ 1,25
Capella	+ 6 . 22	1	+ 2,30	α Cancri	39 . 47	1	+ 0,20
β Persei	11 . 50	1	+ 0,99	α Aquilæ	43 . 44	1	+ 1,67
δ Bootis	18 . 20	1	+ 1,25	α Serpentis	45 . 19	1	+ 1,00
β Lyrae	19 . 1	1	+ 0,16	τ Leonis	48 . 32	1	+ 1,50
ι Aurigæ	19 . 17	1	+ 1,02	γ Ceti	49 . 36	1	+ 0,93
λ Lyrae	20 . 16	1	+ 1,67	Rigel	60 . 36	3	+ 0,79
ε Herculis	21 . 4	2	+ 1,80	β Libræ	61 . 3	1	+ 2,47
41 Cygni	22 . 20	1	+ 1,42	Spica	62 . 36	2	+ 1,13
β Tauri	23 . 44	4	+ 0,98	θ Libræ	68 . 30	1	- 0,89
Pollux	23 . 50	1	+ 0,60	Sirius	68 . 44	2	+ 2,29
ε Bootis	24 . 31	2	+ 2,32	B.A.C. 5579	69 . 40	1	+ 3,75
λ Herculis	25 . 59	1	+ 2,07	β Ceti	71 . 1	1	+ 2,13
α Arietis	+ 29 . 27	3	+ 1,61	μ ¹ Sagittarii	+ 73 . 18	1	+ 2,35

Corrections for Discordance of Zenith Points and Error of the assumed Co-latitude, applied to N.P.D. obtained by direct and reflection observations in 1851.

N.P.D.	Correction of direct observation.	Correction of reflection observation.	N.P.D.	Correction of direct observation.	Correction of reflection observation.	N.P.D.	Correction of direct observation.	Correction of reflection observation.
0	— 0,28	+ 1,02	40	+ 1,09	— 0,35	80	+ 1,13	— 0,39
5	— 0,38	+ 1,12	45	+ 1,36	— 0,62	85	+ 1,14	— 0,40
10	— 0,44	+ 1,18	50	+ 1,58	— 0,84	90	+ 1,31	— 0,57
15	— 0,43	+ 1,17	55	+ 1,72	— 0,98	95	+ 1,56	— 0,82
20	— 0,36	+ 1,10	60	+ 1,79	— 1,05	100	+ 1,74	— 1,00
25	— 0,20	+ 0,94	65	+ 1,79	— 1,05	105	+ 1,84	— 1,10
30	+ 0,05	+ 0,69	70	+ 1,66	— 0,92	110	+ 1,88	— 1,14
35	+ 0,39	+ 0,35	75	+ 1,32	— 0,58	115	+ 1,88	— 1,14
	+ 0,75	— 0,01	80			120	+ 1,87	— 1,13

The curve which represents the law of discordance (described as stated in p. xxiii) has nearly the same form as in previous years, but the zenith point for the zenith direction by the collimating eye-piece is greater than that by direct and reflection observations of stars by the mean quantity 0",56, by which, consequently, the zenith direction is apparently more *southward*. The following is a list of the excesses of the zenith point for zenith direction by the collimating eye-piece for the several years during which this instrument has been in use.

Year	.....	1845	.....	1846	.....	1847	.....	1848	.....	1849	.....	1850	.....	1851
Excess	...	+ 0",02	.....	— 0",08	.....	+ 0",13	.....	+ 0",71	...	— 0",41*	.....	+ 0",44	.....	+ 0",56

* By mistake this quantity has a positive sign in p. xxiv.

These differences follow no obvious law, and probably are in part due to errors of graduation, which may be assumed to be eliminated in the zenith point deduced from the observation of a considerable number of zenith stars.

It should be observed that the corrections in the above Table for Zenith Distances exceeding 65° are uncertain.

Transits for the position of the Circle in 1851.

Day of Observation 1851.	Star.	Approximate N.P.D.	Interval from meridian to mean of wires.	Day of Observation 1851.	Star.	Approximate N.P.D.	Interval from meridian to mean of wires.
Jan. 17	... α Ophiuchi	... 77.20	... — 2,5	Aug. 7	... λ Sagittarii	... 115.30	... — 0,5
18	... α Hydræ	... 98. 1	... — 0,8	7	... β Aquilæ	... 83.58	... — 1,7
Apr. 4	... δ Leonis	... 68.40	... — 2,1	7	... α^2 Capricorni	... 103. 0	... — 0,7
5	... ϵ Hydræ	... 83. 2	... — 2,0	Sept. 10	... ψ^3 Aquarii	... 100.25	... — 1,4
5	... α Hydræ	... 98. 1	... — 1,4	11	... 33 Piscium	... 96.32	... — 1,1
5	... Spica	... 100.23	... — 1,4	12	... e Piscium	... 85. 8	... — 0,9
12	... Spica	... 100.23	... — 1,5	Nov. 3	... τ^2 Aquarii	... 104.23	... — 0,5
17	... ξ^1 Libræ	... 106.12	... — 1,4	3	... δ Aquarii	... 106.37	... — 1,8*
17	... γ Libræ	... 104.17	... — 1,2	3	... B.A.C. 8221	... 103.53	... — 1,4
28	... α^2 Libræ	... 105.25	... — 0,5	20	... α Arietis	... 67.15	... — 1,5
May 8	... Spica	... 100.23	... — 1,2	20	... Rigel	... 98.22	... — 0,8
9	... α^2 Libræ	... 105.25	... — 1,0	22	... β Ceti	... 108.48	... — 0,7
13	... α^2 Libræ	... 105.25	... — 1,0	Dec. 8	... α Ceti	... 86.30	... — 1,9
14	... θ Libræ	... 106.17	... — 1,5	11	... Sirius	... 106.31	... — 0,8
19	... Spica	... 100.23	... — 1,1				

* As the observer thought the noted time was 1' short, — 0,8 has been used.

The apparent R.A. of those stars which are not fundamental were taken from the section of Moon-Culminating stars in the Nautical Almanac. As the above results shewed that the adjustments of the Circle were very little altered by its removal from the wall on March 1 and on Oct. 9, and that they remained nearly the same as in the latter half

of 1850, these observations were used collectively to obtain by graphical construction the following mean values:

N.P.D.	Interval from meridian to middle wire.	N.P.D.	Interval from meridian to middle wire.	N.P.D.	Interval from meridian to middle wire.
60	-1,90	85	-1,40	110	-0,85
65	-1,84	90	-1,30	115	-0,76
70	-1,72	95	-1,20	120	-0,66
75	-1,63	100	-1,09		
80	-1,52	105	-0,96		

These intervals are taken into account in the reduction of observed N.P.D. of the Moon to the meridian, as explained in p. 1.

In addition to the above Circle transits, others were taken unaccompanied by comparisons with Hardy, which were employed to determine the error of Molyneux for reducing observations of Polaris and δ Ursæ Minoris to the meridian. It has not been thought worth while to insert these observations: the foregoing results shew that the Circle was adjusted to the meridian nearly enough to be used for this purpose.

III. Measures of Diameters of the Sun and Moon, and Right Ascensions and North Polar Distances of the Sun, Moon, and Planets, from observations in 1851. Pages 404—412.

The general explanation of the collection of results contained in this Section, may be gathered from the explanations already given relative to the corresponding observations of 1849 and 1850. The following are the only additional particulars that require to be mentioned.

The Greenwich Mean Solar Times, the Tabular R.A. and N.P.D., and the Semi-diameters and Parallaxes of the Sun and Moon were obtained in the same manner as those for the Observations of 1850.

Metis. The observed R.A. and N.P.D. are compared from January 22 to February 26 with the Ephemeris in p. 649 of the Nautical Almanac for 1854, the Log. distances for parallax being deduced from the Ephemeris in the *Berliner Jahrbuch* for 1853, p. 365. To include January 22 and 23, and February 26, the Ephemerides were extended by differences. The Greenwich Mean Time for January 22 was calculated from the Tabular R.A. corrected by +3^s.5. For the observations subsequent to February 26, the Tabular quantities were specially calculated from the Elements used for the computation of the Ephemerides, and given in pages 640 and 371 of the respective works, aberration being taken into account by means of the approximate Ephemeris in p. 648 of the Nautical Almanac.

Iris. For the observations to October 14 inclusive, the Ephemeris in p. 647 of the Nautical Almanac for 1854, and that in p. 359 of the *Berliner Jahrbuch* for 1853, were made use of, the Ephemerides being extended one day by differences. For the remainder of the observations the Tabular values were calculated directly from the Elements in pages 640 and 371 of the above works, the Greenwich Mean Time for the observation of November 14 being first interpolated from Greenwich observations on November 12 and 15, and the Cambridge observations of November 18 and 21. Aberration was taken into account by means of the ten-day Ephemeris of the Nautical Almanac.

Hebe. The Tabular R.A. and N.P.D. were taken from p. 651 of the Nautical Almanac, and Log. distance from p. 357 of the *Berliner Jahrbuch*. The R.A., N.P.D., and Log. distance for comparison with the observed place of June 19, were computed directly from the Elements, but through inadvertence the observed N.P.D. and the comparison with calculation have been omitted. (See the Addenda to the Introduction.)

Parthenope. The Tabular quantities were interpolated for the Greenwich Mean Times corrected for aberration, from the Ephemeris by Luther and Vogel in the Monthly Notices

of the Royal Astronomical Society, Vol. XI. p. 210. The Greenwich Mean Time of Nov. 20 was calculated from the R.A. of that day, as deduced from the observed R.A. of Nov. 22, 24, 25 and 26 by differences.

Astræa. For the observations to May 14 inclusive, the Tabular quantities were taken from the Nautical Almanac of 1854 (p. 655) and the *Berliner Jahrbuch* of 1853 (p. 355), the Ephemerides being extended one day by differences; and for the remaining observations they were computed for the respective Greenwich Mean Times from the Elements, aberration being allowed for by means of the ten-day Ephemeris.

Irene. The Tabular places and Log. distance were computed from the following Elements of Sig^r. Virgilio Trettenero in the *Astronomische Nachrichten*, Vol. XXXVI, N^o. 852, col. 192:

Mean Anomaly 1851, May 21,0 Greenwich Mean Time	45 . 36 . 16,21	} Mean $\mathcal{A}eq^x$. 1851, May 21, 0.
Longitude of Perihelion	178 . 46 . 55,59	
Longitude of Ascending Node	86 . 49 . 6,26	
Angle of Eccentricity	9 . 42 . 55,81	
Inclination	9 . 6 . 40,46	
Logarithm of Mean Distance	0,4123975	
Daily increment of Mean Anomaly	853",90626	

The aberration corrections were deduced from the computations.

Eunomia. The Tabular quantities were computed from the following Elements by Mr George Rümker in the *Astronomische Nachrichten*, Vol. XXXVI, N^o. 859, col. 307:

Mean Anomaly 1851, Dec. 31,0 Berlin Mean Time	314 . 21 . 55,5	} Mean $\mathcal{A}eq^x$. 1851, Dec. 31,0.
Longitude of Perihelion	27 . 53 . 58,3	
Longitude of Ascending Node.....	293 . 54 . 30,0	
Angle of Eccentricity	10 . 49 . 33,4	
Inclination	11 . 43 . 59,6	
Logarithm of Mean Distance	0,4221645	
Daily increment of Mean Anomaly	825",58134	

The Greenwich Mean Time of Aug. 21 was interpolated from those of Aug. 19, 20 and 22. The aberration corrections were deduced from the computations.

Hygeia. The Tabular quantities to Oct. 10 were taken from the Nautical Almanac (p. 657) and the *Berliner Jahrbuch* (p. 367), those for Sept. 12 being obtained by extending the Ephemerides by differences. The remainder were specially calculated from the Elements, and corrected for aberration by means of the ten-day Ephemeris. The Greenwich Mean Times of Sept. 12, 19, Oct. 2 and 14, were deduced from the Tabular R.A. corrected for excess above the observed R.A., the Ephemeris being extended by differences to obtain the Tabular R.A. for Sept. 12 and Oct. 14.

Neptune. The Tabular places were interpolated from Walker's Ephemeris in the *Astronomical Journal*, Vol. I. N^o. 24, p. 185, and the parallax was calculated by means of the values of Log. Δ added to the Ephemeris. For those days on which the Planet was not observed in R.A. the Greenwich Mean Times were deduced from the R.A. of the Ephemeris.

The number of wires at which each transit of a Planet was taken, (inserted in the second column), has been added to aid in forming a judgment of the weights to be given to the separate observations.

The calculation of the *Position of the Ecliptic* and of the *Mean Error of the Assumed R.A. of the Fundamental Stars* (pp. 413 and 414) was performed exactly as in the preceding year, and needs no additional explanation. It may be remarked that the value obtained for the error p seems to shew that the correction applied for discordance of Zenith Points within the Tropics was too large.

The *Occultations of Fixed Stars by the Moon* were reduced in the same manner as those of 1849.

All the observations in this Volume were originally recorded in pencil writing in small memorandum books, which are carefully preserved for future reference.

ADDENDA.

WHILE the Observations of 1851 were in course of printing it was found that there were several points relating to the stars that remained to be determined, which from their positions in the heavens could not be settled at the time. Some of these are mentioned in the notes to the Catalogues of Concluded R.A. and N.P.D. The determinations were subsequently made as follows.

P. 331. The Transit observation of 29 Aquarii on Sept. 12 was accompanied by the remark, '*sp* of a close double, Mag^s. equal.' This was omitted in the Notes as being thought liable to uncertainty on account of the small altitude of the star. But by an observation with the Northumberland Telescope 1857 Aug. 17, the two stars were found to be in the *sp* and *nf* quarters, about 3''' apart, and to be each of Mag. 6.

P. 355. In the Note to N°. 529 it is stated that the concluded R.A. was less than that of Argelander by about 1^s. The R.A. of Argelander was confirmed by a Transit observation taken 1857 Sept. 3.

P. 390, N°. 2. The N.P.D. of the Cambridge Observation was confirmed by an Equatorial observation taken 1857 Aug. 17, and Bessel's N.P.D. is therefore 3' too small.

P. 399, N°. 628. The approximate mean R.A. 1851,0 of this star, as determined by an Equatorial comparison 1857 Aug. 17 with Argelander Z. 308 N°. 42, is 18^h. 14^m. 33^s.

P. 399, N°. 689. The mean R.A. 1851,0 was ascertained Aug. 14, 1857 by an Equatorial comparison with Bessel xx. 932 to be 20^h. 37^m. 42^s.

P. 400, N°. 718 and 719. The mean R.A. 1851,0 as deduced from an Equatorial Comparison 1857 Aug. 17 with Bessel xxi. 280, is 21^h. 8^m. 52^s, as in the Catalogue.

P. 400, N°. 741. The mean R.A. 1851,0 was found by an Equatorial comparison with ϵ Capricorni on Aug. 17, 1857, to be 21^h. 28^m. 48^s. Its magnitude as seen in the Northumberland Telescope was considered by Mr Breen to be 10.11.

Also the following omissions relating to observations of Planets were discovered after the sheets were printed off.

P. 384, Nov. 1. An observation of Hygeia should have been inserted after that of Neptune. It was supposed not to apply to the Planet and was consequently rejected. The microscope readings were 0'. 13'', 3, 11'', 2, 12'', 3, 12'', 9, 6'', 0, 12'', 3; the concluded Circle reading, 114°. 15'. 11'', 38; Barom. 29^m. 500; Thermom. Int. 39°, 0, Ext. 36°, 5; Refraction, 65'', 22; and Apparent N.P.D., 85°. 38'. 13'', 59. The observation is taken into account in p. 411.

P. 410. The following quantities relating to the observation of Hebe on June 19 should have been inserted. Seconds of Tabular R.A., 36°, 94; Excess of Tabular R.A., - 0°, 90; Parallax, 5'', 20; Geocentric N.P.D., 97°. 0'. 0'', 84; Seconds of Tabular N.P.D., 58'', 47; Excess of Tabular N.P.D., - 2'', 37.

TABLES
USED IN THE REDUCTION
OF THE TRANSIT AND CIRCLE OBSERVATIONS,
AS EXPLAINED
IN THE FOREGOING INTRODUCTION.

TABLE I.

General Table of the Coefficients of the Collimation, Level, and Azimuth Errors, for the reduction of the Transit observations.

The N.P.D. of the object observed = δ , and its Zenith Distance = z .

* * See page xii.

N.P.D.	$\frac{1}{15 \sin \delta}$	$\frac{\cos z}{15 \sin \delta}$	$\frac{\sin z}{15 \sin \delta}$	N.P.D.	$\frac{1}{15 \sin \delta}$	$\frac{\cos z}{15 \sin \delta}$	$\frac{\sin z}{15 \sin \delta}$	N.P.D.	$\frac{1}{15 \sin \delta}$	$\frac{\cos z}{15 \sin \delta}$	$\frac{\sin z}{15 \sin \delta}$
0				0				0			
-45	-0,094	-0,012	+0,094*	24	+0,165	+0,159	-0,039	75	+0,069	+0,055	+0,042
-44	-0,096	-0,014	+0,096	25	+0,158	+0,154	-0,035	76	+0,069	+0,054	+0,043
-43	-0,098	-0,016	+0,097	26	+0,152	+0,149	-0,031	77	+0,069	+0,053	+0,044
-42	-0,100	-0,018	+0,099	27	+0,146	+0,144	-0,027	78	+0,068	+0,052	+0,044
-41	-0,102	-0,020	+0,100	28	+0,141	+0,140	-0,024	79	+0,068	+0,051	+0,045
-40	-0,104	-0,022	+0,102	29	+0,137	+0,136	-0,021	80	+0,068	+0,050	+0,046
-39	-0,106	-0,024	+0,103	30	+0,133	+0,132	-0,018	81	+0,068	+0,049	+0,047
-38	-0,109	-0,026	+0,105	31	+0,129	+0,128	-0,015	82	+0,068	+0,048	+0,047
-37	-0,111	-0,029	+0,107	32	+0,126	+0,125	-0,012	83	+0,067	+0,048	+0,048
-36	-0,114	-0,031	+0,109	33	+0,122	+0,122	-0,009	84	+0,067	+0,047	+0,048
-35	-0,116	-0,034	+0,111	34	+0,119	+0,119	-0,007	85	+0,067	+0,046	+0,049
-34	-0,119	-0,037	+0,113	35	+0,116	+0,116	-0,005	86	+0,067	+0,045	+0,050
-33	-0,122	-0,040	+0,115	36	+0,114	+0,114	-0,003	87	+0,067	+0,044	+0,051
-32	-0,126	-0,043	+0,118	37	+0,111	+0,111	-0,001	88	+0,067	+0,043	+0,051
-31	-0,129	-0,046	+0,121	38	+0,109	+0,109	+0,001	89	+0,067	+0,042	+0,052
-30	-0,133	-0,050	+0,124	39	+0,106	+0,106	+0,003	90	+0,067	+0,041	+0,053
-29	-0,137	-0,054	+0,127	40	+0,104	+0,104	+0,004	91	+0,067	+0,040	+0,054
-28	-0,141	-0,058	+0,130	41	+0,102	+0,102	+0,006	92	+0,067	+0,039	+0,055
-27	-0,146	-0,062	+0,133	42	+0,100	+0,100	+0,007	93	+0,067	+0,038	+0,055
-26	-0,152	-0,067	+0,137	43	+0,098	+0,098	+0,009	94	+0,067	+0,037	+0,056
-25	-0,158	-0,072	+0,141	44	+0,096	+0,096	+0,010	95	+0,067	+0,036	+0,057
-24	-0,165	-0,077	+0,145	45	+0,094	+0,094	+0,012	96	+0,067	+0,035	+0,058
-23	-0,172	-0,083	+0,149	46	+0,092	+0,092	+0,014	97	+0,067	+0,034	+0,058
-22	-0,179	-0,089	+0,154	47	+0,091	+0,090	+0,015	98	+0,068	+0,034	+0,059
-21	-0,187	-0,096	+0,159	48	+0,090	+0,089	+0,016	99	+0,068	+0,033	+0,059
-20	-0,195	-0,104	+0,165	49	+0,088	+0,087	+0,018	100	+0,068	+0,032	+0,060
-19	-0,205	-0,112	+0,172	50	+0,087	+0,085	+0,019	101	+0,068	+0,031	+0,061
-18	-0,216	-0,121	+0,179	51	+0,085	+0,083	+0,021	102	+0,068	+0,030	+0,062
-17	-0,228	-0,131	+0,187	52	+0,084	+0,082	+0,022	103	+0,069	+0,029	+0,062
-16	-0,242	-0,143	+0,195	53	+0,083	+0,081	+0,023	104	+0,069	+0,028	+0,063
-15	-0,258	-0,156	+0,205	54	+0,082	+0,079	+0,024	105	+0,069	+0,027	+0,064
-14	-0,276	-0,170	+0,217	55	+0,081	+0,078	+0,024	106	+0,069	+0,026	+0,065
-13	-0,297	-0,187	+0,230	56	+0,080	+0,076	+0,025	107	+0,070	+0,025	+0,066
-12	-0,321	-0,207	+0,245	57	+0,079	+0,075	+0,026	108	+0,070	+0,024	+0,066
-11	-0,350	-0,231	+0,263	58	+0,078	+0,073	+0,027	109	+0,071	+0,023	+0,067
-10	-0,384	-0,258	+0,285	59	+0,077	+0,072	+0,028	110	+0,071	+0,022	+0,068
				60	+0,077	+0,071	+0,029	111	+0,072	+0,021	+0,069
10	+0,384	+0,340	-0,179	61	+0,076	+0,070	+0,030	112	+0,072	+0,020	+0,070
11	+0,350	+0,313	-0,157	62	+0,076	+0,069	+0,031	113	+0,073	+0,018	+0,070
12	+0,321	+0,289	-0,139	63	+0,075	+0,068	+0,032	114	+0,073	+0,017	+0,071
13	+0,297	+0,269	-0,124	64	+0,075	+0,067	+0,033	115	+0,074	+0,016	+0,072
14	+0,276	+0,252	-0,111	65	+0,074	+0,066	+0,034	116	+0,075	+0,015	+0,073
15	+0,258	+0,238	-0,099	66	+0,073	+0,065	+0,035	117	+0,075	+0,014	+0,074
16	+0,242	+0,225	-0,089	67	+0,073	+0,063	+0,036	118	+0,076	+0,013	+0,075
17	+0,228	+0,213	-0,081	68	+0,072	+0,062	+0,037	119	+0,076	+0,012	+0,076
18	+0,216	+0,203	-0,073	69	+0,072	+0,061	+0,037	120	+0,077	+0,011	+0,077
19	+0,205	+0,194	-0,066	70	+0,071	+0,060	+0,038	121	+0,078	+0,010	+0,078
20	+0,195	+0,186	-0,059	71	+0,071	+0,059	+0,039	122	+0,078	+0,008	+0,079
21	+0,187	+0,178	-0,053	72	+0,070	+0,058	+0,040	123	+0,079	+0,007	+0,080
22	+0,179	+0,171	-0,048	73	+0,070	+0,057	+0,041	124	+0,080	+0,005	+0,080
23	+0,172	+0,165	-0,043	74	+0,069	+0,056	+0,041	125	+0,081	+0,004	+0,081

TABLE II.

*Table of the Coefficients of the Collimation, Level, and Azimuth Errors,
for the reduction of Transit observations of the Fundamental Stars.*

The Star's N.P.D. = δ , and its Zenith Distance = z .

* * See page xii.

Star.	$\frac{1}{15 \sin \delta}$	$\frac{\cos z}{15 \sin \delta}$	$\frac{\sin z}{15 \sin \delta}$	Star.	$\frac{1}{15 \sin \delta}$	$\frac{\cos z}{15 \sin \delta}$	$\frac{\sin z}{15 \sin \delta}$
α Andromedæ.....	+ 0,076	+ 0,069	+ 0,031	Arcturus.....	+ 0,071	+ 0,060	+ 0,038
β Ceti.....	+ 0,070	+ 0,023	+ 0,067	ϵ Bootis.....	+ 0,075	+ 0,068	+ 0,031
α Arietis.....	+ 0,072	+ 0,063	+ 0,036	α^2 Libræ.....	+ 0,069	+ 0,026	+ 0,064
α Ceti.....	+ 0,067	+ 0,044	+ 0,050	α Coronæ Borealis ...	+ 0,075	+ 0,068	+ 0,032
Aldebaran.....	+ 0,069	+ 0,056	+ 0,041	α Serpentis.....	+ 0,067	+ 0,047	+ 0,048
Rigel.....	+ 0,067	+ 0,033	+ 0,059	δ Ophiuchi.....	+ 0,067	+ 0,038	+ 0,055
β Tauri.....	+ 0,076	+ 0,069	+ 0,030	Antares.....	+ 0,074	+ 0,015	+ 0,073
α Orionis.....	+ 0,067	+ 0,048	+ 0,047	α Herculis.....	+ 0,069	+ 0,055	+ 0,042
Sirius.....	+ 0,070	+ 0,025	+ 0,065	α Ophiuchi.....	+ 0,068	+ 0,053	+ 0,044
Castor.....	+ 0,079	+ 0,074	+ 0,027	μ^1 Sagittarii.....	+ 0,071	+ 0,021	+ 0,068
Procyon.....	+ 0,067	+ 0,046	+ 0,049	β Lyræ.....	+ 0,080	+ 0,075	+ 0,026
Pollux.....	+ 0,076	+ 0,069	+ 0,031	ζ Aquilæ.....	+ 0,069	+ 0,054	+ 0,043
ϵ Hydræ.....	+ 0,067	+ 0,047	+ 0,048	γ Aquilæ.....	+ 0,068	+ 0,050	+ 0,045
α Hydræ.....	+ 0,067	+ 0,033	+ 0,058	α Aquilæ.....	+ 0,067	+ 0,049	+ 0,047
Regulus.....	+ 0,068	+ 0,053	+ 0,044	β Aquilæ.....	+ 0,067	+ 0,046	+ 0,048
δ Leonis.....	+ 0,072	+ 0,061	+ 0,037	α^2 Capricorni.....	+ 0,068	+ 0,029	+ 0,062
β Leonis.....	+ 0,069	+ 0,055	+ 0,041	β Aquarii.....	+ 0,067	+ 0,035	+ 0,057
β Corvi.....	+ 0,072	+ 0,019	+ 0,070	α Aquarii.....	+ 0,067	+ 0,040	+ 0,053
Spica.....	+ 0,068	+ 0,031	+ 0,060	α Pegasi.....	+ 0,069	+ 0,054	+ 0,042

The above Table was calculated for the mean N.P.D. of the Stars Jan. 1, 1860, and may be used fourteen years before or after that date.

The following are the coefficients for Polaris, δ Ursæ Minoris, and 51 (Hev.) Cephei, calculated for the year 1850 + n .

Star.	$\frac{1}{15 \sin \delta}$	$\frac{\cos z}{15 \sin \delta}$	$\frac{\sin z}{15 \sin \delta}$
Polaris.....	+ 2,56721 + 0,009593 $\times n$	+ 2,06905 + 0,007584 $\times n$	- 1,51973 - 0,005879 $\times n$
Polaris SP.....	- 2,56721 - 0,009593 $\times n$	- 1,98736 - 0,007584 $\times n$	+ 1,62511 + 0,005879 $\times n$
δ Ursæ Minoris.....	+ 1,12383 + 0,000165 $\times n$	+ 0,92746 + 0,000131 $\times n$	- 0,63468 - 0,000101 $\times n$
δ Ursæ Minoris SP...	- 1,12383 - 0,000165 $\times n$	- 0,84576 - 0,000131 $\times n$	+ 0,74006 + 0,000101 $\times n$
51 (Hev.) Cephei....	+ 1,39149 - 0,000365 $\times n$	+ 1,13929 - 0,000289 $\times n$	- 0,79891 + 0,000224 $\times n$
51 (Hev.) Cephei SP.	- 1,39149 + 0,000365 $\times n$	- 1,05760 + 0,000289 $\times n$	+ 0,90428 - 0,000224 $\times n$

TABLE III.

Corrections for curvature of path of Polaris and δ Ursæ Minoris.

* * See page xviii.

Interval from Meridian Transit.	Correction for Polaris Decl. = $88^{\circ}.29' + n''$.	Differ ^s .	Interval from Meridian Transit.	Correction for Polaris Decl. = $88^{\circ}.29' + n''$.	Differ ^s .	Interval from Meridian Transit.	Correction for δ Ursæ Minoris Decl. = $86^{\circ}.35' + n''$.	Differ ^s .
<i>m. s.</i>	<i>''</i>		<i>m. s.</i>	<i>''</i>		<i>m. s.</i>	<i>''</i>	
0.20	0,01	1	11.40	7,07 - 0,0013 <i>n</i>	41	0.20	0,01	4
0.40	0,02	3	12. 0	7,48 - 0,0014 <i>n</i>	42	0.40	0,05	7
1. 0	0,05	4	12.20	7,90 - 0,0014 <i>n</i>	43	1. 0	0,12	9
1.20	0,09	5	12.40	8,33 - 0,0015 <i>n</i>	45	1.20	0,21	11
1.40	0,14	7	13. 0	8,78 - 0,0016 <i>n</i>	45	1.40	0,32	15
2. 0	0,21	7	13.20	9,23 - 0,0017 <i>n</i>	47	2. 0	0,47	17
2.20	0,28 - 0,0001 <i>n</i>	9	13.40	9,70 - 0,0018 <i>n</i>	48	2.20	0,64 - 0,0001 <i>n</i>	19
2.40	0,37 - 0,0001 <i>n</i>	10	14. 0	10,18 - 0,0019 <i>n</i>	49	2.40	0,83 - 0,0001 <i>n</i>	22
3. 0	0,47 - 0,0001 <i>n</i>	11	14.20	10,67 - 0,0020 <i>n</i>	50	3. 0	1,05 - 0,0001 <i>n</i>	25
3.20	0,58 - 0,0001 <i>n</i>	12	14.40	11,17 - 0,0020 <i>n</i>	51	3.20	1,30 - 0,0001 <i>n</i>	27
3.40	0,70 - 0,0001 <i>n</i>	13	15. 0	11,68 - 0,0021 <i>n</i>	53	3.40	1,57 - 0,0001 <i>n</i>	30
4. 0	0,83 - 0,0002 <i>n</i>	15	15.20	12,21 - 0,0022 <i>n</i>	54	4. 0	1,87 - 0,0002 <i>n</i>	32
4.20	0,98 - 0,0002 <i>n</i>	15	15.40	12,75 - 0,0023 <i>n</i>	54	4.20	2,19 - 0,0002 <i>n</i>	35
4.40	1,13 - 0,0002 <i>n</i>	17	16. 0	13,29 - 0,0024 <i>n</i>	56	4.40	2,54 - 0,0002 <i>n</i>	38
5. 0	1,30 - 0,0002 <i>n</i>	18	16.20	13,85 - 0,0025 <i>n</i>	57	5. 0	2,92 - 0,0002 <i>n</i>	40
5.20	1,48 - 0,0003 <i>n</i>	19	16.40	14,42 - 0,0026 <i>n</i>	59	5.20	3,32 - 0,0003 <i>n</i>	43
5.40	1,67 - 0,0003 <i>n</i>	20	17. 0	15,01 - 0,0027 <i>n</i>	59	5.40	3,75 - 0,0003 <i>n</i>	46
6. 0	1,87 - 0,0003 <i>n</i>	21	17.20	15,60 - 0,0029 <i>n</i>	61	6. 0	4,21 - 0,0003 <i>n</i>	48
6.20	2,08 - 0,0004 <i>n</i>	23	17.40	16,21 - 0,0030 <i>n</i>	61	6.20	4,69 - 0,0004 <i>n</i>	50
6.40	2,31 - 0,0004 <i>n</i>	24	18. 0	16,82 - 0,0031 <i>n</i>	63	6.40	5,19 - 0,0004 <i>n</i>	53
7. 0	2,55 - 0,0005 <i>n</i>	24	18.20	17,45 - 0,0032 <i>n</i>	64	7. 0	5,72 - 0,0005 <i>n</i>	56
7.20	2,79 - 0,0005 <i>n</i>	26	18.40	18,09 - 0,0033 <i>n</i>	65	7.20	6,28 - 0,0005 <i>n</i>	59
7.40	3,05 - 0,0006 <i>n</i>	27	19. 0	18,74 - 0,0034 <i>n</i>	67	7.40	6,87 - 0,0006 <i>n</i>	61
8. 0	3,32 - 0,0006 <i>n</i>	29	19.20	19,41 - 0,0036 <i>n</i>	67	8. 0	7,48 - 0,0006 <i>n</i>	63
8.20	3,61 - 0,0007 <i>n</i>	29	19.40	20,08 - 0,0037 <i>n</i>	69	8.20	8,11 - 0,0007 <i>n</i>	66
8.40	3,90 - 0,0007 <i>n</i>	31	20. 0	20,77 - 0,0038 <i>n</i>	69	8.40	8,77 - 0,0007 <i>n</i>	69
9. 0	4,21 - 0,0008 <i>n</i>	31	20.20	21,46 - 0,0039 <i>n</i>	71	9. 0	9,46 - 0,0008 <i>n</i>	71
9.20	4,52 - 0,0008 <i>n</i>	33	20.40	22,17 - 0,0041 <i>n</i>	72	9.20	10,17 - 0,0008 <i>n</i>	74
9.40	4,85 - 0,0009 <i>n</i>	34	21. 0	22,89 - 0,0042 <i>n</i>	74	9.40	10,91 - 0,0009 <i>n</i>	77
10. 0	5,19 - 0,0010 <i>n</i>	36	21.20	23,63 - 0,0043 <i>n</i>	74	10. 0	11,68 - 0,0009 <i>n</i>	79
10.20	5,55 - 0,0010 <i>n</i>	36	21.40	24,37 - 0,0045 <i>n</i>	75	10.20	12,47 - 0,0010 <i>n</i>	82
10.40	5,91 - 0,0011 <i>n</i>	37	22. 0	25,12 - 0,0046 <i>n</i>	77	10.40	13,29 - 0,0011 <i>n</i>	84
11. 0	6,28 - 0,0012 <i>n</i>	39	22.20	25,89 - 0,0047 <i>n</i>	78	11. 0	14,13 - 0,0011 <i>n</i>	87
11.20	6,67 - 0,0012 <i>n</i>	40	22.40	26,67 - 0,0049 <i>n</i>	79	11.20	15,00 - 0,0012 <i>n</i>	90
11.40	7,07 - 0,0013 <i>n</i>		23. 0	27,46 - 0,0050 <i>n</i>		11.40	15,90 - 0,0013 <i>n</i>	

* * The sign of the Correction is + above Pole and - below Pole for a direct observation; and - above Pole and + below Pole for a reflection observation.

TABLE IV.

Corrections for curvature of path at given Intervals from the middle wire for given Declinations.

* * See page xviii.

Decl ⁿ	Int. $\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{1}{4}$	$3\frac{1}{2}$	$3\frac{3}{4}$	4	$4\frac{1}{4}$	$4\frac{1}{2}$	$4\frac{3}{4}$
0	0,00	0,00	0,01	0,01	0,02	0,03	0,04	0,05	0,07	0,08	0,10	0,12	0,14	0,16	0,18	0,21	0,24	0,27	0,30
10	0,00	0,01	0,01	0,03	0,04	0,06	0,08	0,11	0,13	0,17	0,20	0,24	0,28	0,32	0,37	0,42	0,48	0,54	0,60
15	0,00	0,01	0,02	0,04	0,06	0,09	0,12	0,16	0,20	0,25	0,30	0,36	0,43	0,49	0,57	0,64	0,73	0,82	0,91
20	0,00	0,01	0,03	0,05	0,09	0,12	0,17	0,22	0,28	0,34	0,41	0,49	0,58	0,67	0,77	0,88	0,99	1,11	1,23
22	0,00	0,02	0,03	0,06	0,09	0,14	0,19	0,24	0,31	0,38	0,46	0,55	0,64	0,74	0,85	0,97	1,10	1,23	1,37
24	0,00	0,02	0,04	0,07	0,10	0,15	0,20	0,27	0,34	0,42	0,51	0,60	0,71	0,82	0,94	1,07	1,21	1,36	1,51
26	0,00	0,02	0,04	0,07	0,11	0,16	0,22	0,29	0,37	0,46	0,55	0,66	0,77	0,90	1,03	1,17	1,32	1,48	1,65
28	0,01	0,02	0,05	0,08	0,12	0,18	0,24	0,32	0,40	0,50	0,60	0,72	0,84	0,98	1,12	1,28	1,44	1,62	1,80
30	0,01	0,02	0,05	0,09	0,14	0,20	0,27	0,35	0,44	0,54	0,66	0,78	0,92	1,06	1,22	1,39	1,57	1,76	1,96
32	0,01	0,02	0,05	0,09	0,15	0,21	0,29	0,38	0,48	0,59	0,71	0,85	0,99	1,15	1,32	1,50	1,70	1,90	2,12
34	0,01	0,03	0,06	0,10	0,16	0,23	0,31	0,41	0,51	0,63	0,77	0,91	1,07	1,24	1,43	1,62	1,83	2,05	2,29
36	0,01	0,03	0,06	0,11	0,17	0,25	0,33	0,44	0,55	0,68	0,83	0,98	1,15	1,34	1,54	1,75	1,97	2,21	2,46
38	0,01	0,03	0,07	0,12	0,18	0,26	0,36	0,47	0,59	0,73	0,89	1,06	1,24	1,44	1,65	1,88	2,12	2,38	2,65
40	0,01	0,03	0,07	0,13	0,20	0,28	0,39	0,50	0,64	0,79	0,95	1,14	1,33	1,54	1,77	2,02	2,28	2,55	2,85
42	0,01	0,03	0,08	0,14	0,21	0,30	0,41	0,54	0,69	0,85	1,02	1,22	1,43	1,66	1,90	2,17	2,44	2,74	3,05
44	0,01	0,04	0,08	0,15	0,23	0,33	0,44	0,58	0,73	0,91	1,10	1,31	1,53	1,78	2,04	2,32	2,62	2,94	3,27

Corrections for curvature of path at given Intervals from the middle wire for given Declinations, continued.

Decl ⁿ .	Int. $\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{1}{4}$	$3\frac{1}{2}$	$3\frac{3}{4}$	4	$4\frac{1}{4}$	$4\frac{1}{2}$	$4\frac{3}{4}$
45	0,01	0,04	0,08	0,15	0,23	0,34	0,46	0,60	0,76	0,94	1,14	1,35	1,59	1,84	2,11	2,40	2,71	3,04	3,39
46	0,01	0,04	0,09	0,16	0,24	0,35	0,48	0,62	0,79	0,97	1,18	1,40	1,64	1,91	2,19	2,49	2,81	3,15	3,51
47	0,01	0,04	0,09	0,16	0,25	0,36	0,49	0,64	0,82	1,01	1,22	1,45	1,70	1,97	2,27	2,58	2,91	3,26	3,64
48	0,01	0,04	0,09	0,17	0,26	0,38	0,51	0,67	0,85	1,04	1,26	1,50	1,76	2,05	2,35	2,67	3,02	3,38	3,77
49	0,01	0,04	0,10	0,17	0,27	0,39	0,53	0,69	0,88	1,08	1,31	1,56	1,83	2,12	2,43	2,77	3,12	3,50	3,90
50	0,01	0,04	0,10	0,18	0,28	0,40	0,55	0,72	0,91	1,12	1,35	1,61	1,89	2,19	2,52	2,87	3,24	3,63	4,04
51	0,01	0,05	0,10	0,19	0,29	0,42	0,57	0,74	0,94	1,16	1,40	1,67	1,96	2,27	2,61	2,97	3,35	3,76	4,19
52	0,01	0,05	0,11	0,19	0,30	0,43	0,59	0,77	0,97	1,20	1,45	1,73	2,03	2,36	2,71	3,08	3,47	3,90	4,34
53	0,01	0,05	0,11	0,20	0,31	0,45	0,61	0,80	1,01	1,25	1,51	1,80	2,11	2,44	2,80	3,19	3,60	4,04	4,50
54	0,01	0,05	0,12	0,21	0,32	0,47	0,63	0,83	1,05	1,29	1,56	1,86	2,18	2,53	2,91	3,31	3,74	4,19	4,67
55	0,01	0,05	0,12	0,21	0,34	0,48	0,66	0,86	1,09	1,34	1,62	1,93	2,27	2,63	3,02	3,43	3,88	4,35	4,84
56	0,01	0,06	0,13	0,22	0,35	0,50	0,68	0,89	1,13	1,39	1,69	2,01	2,35	2,73	3,13	3,57	4,02	4,51	5,03
57	0,01	0,06	0,13	0,23	0,36	0,52	0,71	0,93	1,17	1,45	1,75	2,08	2,44	2,84	3,25	3,70	4,18	4,67	5,22
58	0,02	0,06	0,14	0,24	0,38	0,54	0,74	0,96	1,22	1,50	1,82	2,16	2,54	2,95	3,38	3,85	4,34	4,87	5,43
59	0,02	0,06	0,14	0,25	0,39	0,56	0,77	1,00	1,27	1,56	1,89	2,25	2,64	3,07	3,52	4,00	4,52	5,07	5,64
60	0,02	0,07	0,15	0,26	0,41	0,59	0,80	1,04	1,32	1,63	1,97	2,34	2,75	3,19	3,66	4,17	4,70	5,27	5,87
61	0,02	0,07	0,15	0,27	0,42	0,61	0,83	1,08	1,37	1,69	2,05	2,44	2,86	3,32	3,81	4,34	4,90	5,49	6,12
62	0,02	0,07	0,16	0,28	0,44	0,64	0,87	1,13	1,43	1,77	2,14	2,54	2,99	3,46	3,97	4,52	5,11	5,72	6,38
63	0,02	0,07	0,17	0,29	0,46	0,66	0,90	1,18	1,49	1,84	2,23	2,65	3,12	3,61	4,15	4,72	5,33	5,97	6,65
64	0,02	0,08	0,17	0,31	0,48	0,69	0,94	1,23	1,56	1,93	2,33	2,77	3,25	3,77	4,33	4,93	5,57	6,24	6,95
65	0,02	0,08	0,18	0,32	0,50	0,73	0,99	1,29	1,63	2,01	2,44	2,90	3,40	3,95	4,53	5,16	5,82	6,53	7,27
66 . 0	0,02	0,08	0,19	0,34	0,53	0,76	1,03	1,35	1,71	2,11	2,55	3,04	3,57	4,14	4,75	5,40	6,10	6,84	7,62
66 . 30	0,02	0,09	0,19	0,35	0,54	0,78	1,06	1,38	1,75	2,16	2,61	3,11	3,65	4,23	4,86	5,53	6,24	7,00	7,80
67 . 0	0,02	0,09	0,20	0,35	0,55	0,80	1,08	1,42	1,79	2,21	2,68	3,19	3,74	4,34	4,98	5,67	6,39	7,17	7,99
67 . 30	0,02	0,09	0,20	0,36	0,57	0,82	1,11	1,45	1,84	2,27	2,74	3,27	3,83	4,45	5,10	5,81	6,55	7,35	8,19
68 . 0	0,02	0,09	0,21	0,37	0,58	0,84	1,14	1,49	1,88	2,32	2,81	3,35	3,93	4,56	5,23	5,95	6,72	7,53	8,39
68 . 30	0,02	0,10	0,21	0,38	0,60	0,86	1,17	1,53	1,93	2,38	2,89	3,43	4,03	4,67	5,37	6,11	6,89	7,73	8,61
69 . 0	0,02	0,10	0,22	0,39	0,61	0,88	1,20	1,57	1,98	2,45	2,96	3,52	4,14	4,80	5,51	6,26	7,07	7,93	8,83
69 . 30	0,03	0,10	0,23	0,40	0,63	0,90	1,23	1,61	2,04	2,51	3,04	3,62	4,25	4,92	5,65	6,43	7,26	8,14	9,07
70 . 0	0,03	0,10	0,23	0,41	0,65	0,93	1,26	1,65	2,09	2,58	3,12	3,72	4,36	5,06	5,81	6,61	7,46	8,36	9,32
70 . 30	0,03	0,11	0,24	0,42	0,66	0,96	1,30	1,70	2,15	2,65	3,21	3,82	4,48	5,20	5,97	6,79	7,67	8,60	9,58
71 . 0	0,03	0,11	0,25	0,44	0,68	0,98	1,34	1,75	2,21	2,73	3,30	3,93	4,61	5,35	6,14	6,98	7,88	8,84	9,85
71 . 30	0,03	0,11	0,25	0,45	0,70	1,01	1,38	1,80	2,27	2,81	3,40	4,04	4,74	5,50	6,32	7,19	8,11	9,10	10,13
72 . 0	0,03	0,12	0,26	0,46	0,72	1,04	1,42	1,85	2,34	2,89	3,50	4,16	4,89	5,67	6,50	7,40	8,35	9,37	10,44
72 . 30	0,03	0,12	0,27	0,48	0,74	1,07	1,46	1,91	2,41	2,98	3,61	4,29	5,04	5,84	6,70	7,63	8,61	9,65	10,75
73 . 0	0,03	0,12	0,28	0,49	0,77	1,11	1,51	1,97	2,49	3,07	3,72	4,42	5,19	6,02	6,91	7,87	8,88	9,96	11,09
73 . 30	0,03	0,13	0,29	0,51	0,79	1,14	1,55	2,03	2,57	3,17	3,84	4,57	5,36	6,22	7,14	8,12	9,16	10,28	11,45
74 . 0	0,03	0,13	0,29	0,52	0,82	1,18	1,61	2,10	2,65	3,28	3,96	4,72	5,54	6,42	7,37	8,39	9,47	10,61	11,83
74 . 30	0,03	0,14	0,30	0,54	0,85	1,22	1,66	2,17	2,74	3,39	4,10	4,88	5,72	6,64	7,62	8,67	9,79	10,98	12,23
75 . 0	0,04	0,13	0,32	0,56	0,88	1,26	1,72	2,24	2,84	3,51	4,24	5,05	5,92	6,87	7,89	8,97	10,13	11,36	12,65
75 . 20	0,04	0,14	0,32	0,57	0,90	1,29	1,76	2,30	2,91	3,59	4,34	5,17	6,07	7,04	8,08	9,19	10,37	11,63	12,96
75 . 40	0,04	0,15	0,33	0,59	0,92	1,32	1,80	2,35	2,98	3,68	4,45	5,29	6,21	7,21	8,27	9,41	10,62	11,91	13,27
76 . 0	0,04	0,15	0,34	0,60	0,94	1,36	1,85	2,41	3,05	3,77	4,56	5,43	6,37	7,38	8,48	9,65	10,89	12,21	13,60
76 . 20	0,04	0,15	0,35	0,62	0,97	1,39	1,89	2,47	3,13	3,86	4,67	5,56	6,53	7,57	8,69	9,89	11,16	12,52	13,94
76 . 40	0,04	0,16	0,36	0,63	0,99	1,43	1,94	2,54	3,21	3,96	4,80	5,71	6,70	7,77	8,92	10,15	11,45	12,84	14,31
77 . 0	0,04	0,16	0,37	0,65	1,02	1,46	1,99	2,60	3,30	4,07	4,92	5,86	6,88	7,97	9,15	10,42	11,76	13,18	14,69
77 . 20	0,04	0,17	0,38	0,67	1,05	1,50	2,05	2,67	3,39	4,18	5,06	6,02	7,06	8,19	9,40	10,70	12,08	13,54	15,09
77 . 40	0,04	0,17	0,39	0,69	1,07	1,55	2,11	2,75	3,48	4,30	5,20	6,19	7,26	8,42	9,67	11,00	12,42	13,92	15,51
78 . 0	0,04	0,18	0,40	0,71	1,10	1,59	2,17	2,83	3,58	4,42	5,35	6,36	7,47	8,66	9,94	11,31	12,77	14,32	15,95
78 . 20	0,05	0,18	0,41	0,73	1,14	1,64	2,23	2,91	3,68	4,55	5,50	6,55	7,69	8,92	10,24	11,65	13,15	14,74	16,42
78 . 30	0,05	0,18	0,42	0,74	1,15	1,66	2,26	2,95	3,74	4,62	5,59	6,65	7,80	9,05	10,39	11,82	13,34	14,96	16,67
78 . 40	0,05	0,19	0,42	0,75	1,17	1,69	2,30	3,00	3,80	4,69	5,67	6,75	7,92	9,19	10,54	12,00	13,54	15,18	16,92

•• For a direct observation the sign of the Correction is + North of the Equator and above the Pole, and - South of the Equator and below the Pole. For a reflection observation the signs are the opposite to those for a direct observation.

TABLE V.

Corrections for change of N.P.D. of the Sun and Planets in one interval from the middle wire, for given declinations and given horary variations of declination.

* * See page xviii.

Decl ⁿ .	Hor. Var. 1"	2"	3"	4"	5"	6"	7"	8"	9"	10"
0	0,0046	0,0092	0,0138	0,0184	0,0231	0,0277	0,0323	0,0369	0,0415	0,0461
1	0,0046	0,0092	0,0138	0,0184	0,0231	0,0277	0,0323	0,0369	0,0415	0,0461
2	0,0046	0,0092	0,0138	0,0185	0,0231	0,0277	0,0323	0,0369	0,0415	0,0461
3	0,0046	0,0092	0,0139	0,0185	0,0231	0,0277	0,0323	0,0369	0,0416	0,0462
4	0,0046	0,0092	0,0139	0,0185	0,0231	0,0277	0,0324	0,0370	0,0416	0,0462
5	0,0046	0,0093	0,0139	0,0185	0,0231	0,0278	0,0324	0,0370	0,0417	0,0463
6	0,0046	0,0093	0,0139	0,0185	0,0232	0,0278	0,0325	0,0371	0,0417	0,0464
7	0,0046	0,0093	0,0139	0,0186	0,0232	0,0279	0,0325	0,0372	0,0418	0,0465
8	0,0047	0,0093	0,0140	0,0186	0,0233	0,0279	0,0326	0,0373	0,0419	0,0466
9	0,0047	0,0093	0,0140	0,0187	0,0233	0,0280	0,0327	0,0373	0,0420	0,0467
10	0,0047	0,0094	0,0140	0,0187	0,0234	0,0281	0,0328	0,0375	0,0421	0,0468
11	0,0047	0,0094	0,0141	0,0188	0,0235	0,0282	0,0329	0,0376	0,0423	0,0470
12	0,0047	0,0094	0,0141	0,0189	0,0236	0,0283	0,0330	0,0377	0,0424	0,0471
13	0,0047	0,0095	0,0142	0,0189	0,0237	0,0284	0,0331	0,0379	0,0426	0,0473
14	0,0048	0,0095	0,0143	0,0190	0,0238	0,0285	0,0333	0,0380	0,0428	0,0475
15	0,0048	0,0095	0,0143	0,0191	0,0239	0,0286	0,0334	0,0382	0,0430	0,0477
16	0,0048	0,0096	0,0144	0,0192	0,0240	0,0288	0,0336	0,0384	0,0432	0,0480
17	0,0048	0,0096	0,0145	0,0193	0,0241	0,0289	0,0338	0,0386	0,0434	0,0482
18	0,0048	0,0097	0,0145	0,0194	0,0242	0,0291	0,0339	0,0388	0,0436	0,0485
19	0,0049	0,0098	0,0146	0,0195	0,0244	0,0293	0,0341	0,0390	0,0439	0,0488
20	0,0049	0,0098	0,0147	0,0196	0,0245	0,0294	0,0343	0,0393	0,0442	0,0491
21	0,0049	0,0099	0,0148	0,0198	0,0247	0,0296	0,0346	0,0395	0,0445	0,0494
22	0,0050	0,0099	0,0149	0,0199	0,0249	0,0298	0,0348	0,0398	0,0448	0,0497
23	0,0050	0,0100	0,0150	0,0200	0,0250	0,0301	0,0351	0,0401	0,0451	0,0501
24	0,0050	0,0101	0,0151	0,0202	0,0252	0,0303	0,0353	0,0404	0,0454	0,0505
25	0,0051	0,0102	0,0153	0,0204	0,0254	0,0305	0,0356	0,0407	0,0458	0,0509
26	0,0051	0,0103	0,0154	0,0205	0,0257	0,0308	0,0359	0,0410	0,0462	0,0513
27	0,0052	0,0104	0,0155	0,0207	0,0259	0,0311	0,0362	0,0414	0,0466	0,0518
28	0,0052	0,0104	0,0157	0,0209	0,0261	0,0313	0,0366	0,0418	0,0470	0,0522
29	0,0053	0,0105	0,0158	0,0211	0,0264	0,0316	0,0369	0,0422	0,0474	0,0527
30	0,0053	0,0106	0,0160	0,0213	0,0266	0,0319	0,0373	0,0426	0,0479	0,0532
31	0,0054	0,0108	0,0161	0,0215	0,0269	0,0323	0,0377	0,0430	0,0484	0,0538
32	0,0054	0,0109	0,0163	0,0217	0,0272	0,0326	0,0381	0,0435	0,0489	0,0544
33	0,0055	0,0110	0,0165	0,0220	0,0275	0,0330	0,0385	0,0440	0,0495	0,0550
34	0,0056	0,0111	0,0167	0,0222	0,0278	0,0334	0,0389	0,0445	0,0501	0,0556
35	0,0056	0,0113	0,0169	0,0225	0,0281	0,0338	0,0394	0,0450	0,0507	0,0563
36	0,0057	0,0114	0,0171	0,0228	0,0285	0,0342	0,0399	0,0456	0,0513	0,0570
37	0,0058	0,0115	0,0173	0,0231	0,0289	0,0346	0,0404	0,0462	0,0520	0,0577
38	0,0059	0,0117	0,0176	0,0234	0,0293	0,0351	0,0410	0,0468	0,0527	0,0585
39	0,0059	0,0119	0,0178	0,0247	0,0297	0,0356	0,0415	0,0475	0,0534	0,0593
40	0,0060	0,0120	0,0181	0,0241	0,0301	0,0361	0,0421	0,0482	0,0542	0,0602

* * When the sign of the horary variation of declination in the Nautical Almanac is -, the sign of the correction is + before passing the middle wire and - after passing. When the sign of the horary variation of declination is + in the Nautical Almanac, the sign of the correction is - before passing the middle wire and + after passing.

TABLE VI.

Table of corrections for reducing the Tabular R.A. and N.P.D. of the Sun, Moon, and Planets, from the Greenwich to the Cambridge transit.

* * See page xxvii.

Var. of Decl. or R.A. in 1 ^h .	Var. in 22 ^h ,75	Var. of Decl. or R.A. in 1 ^h .	Var. in 22 ^h ,75.	Var. of Decl. or R.A. in 1 ^h .	Var. in 22 ^h ,75.	Var. of Decl. or R.A. in 1 ^h .	Var. in 22 ^h ,75.	Var. of Decl. or R.A. in 1 ^h .	Var. in 22 ^h ,75.	Var. of Decl. or R.A. in 1 ^h .	Var. in 22 ^h ,75.	Var. of Decl. or R.A. in 1 ^h .	Var. in 22 ^h ,75.	Var. of Decl. or R.A. in 1 ^h .	Var. in 22 ^h ,75.
s. or "	s. or "	s. or "	s. or "	s. or "	s. or "	s. or "	s. or "	s. or "	s. or "	s. or "	s. or "	s. or "	s. or "	s. or "	s. or "
1	0,006	26	0,164	51	0,322	76	0,480	101	0,638	126	0,796	151	0,954	176	1,112
2	0,013	27	0,171	52	0,329	77	0,487	102	0,645	127	0,803	152	0,961	177	1,119
3	0,019	28	0,177	53	0,335	78	0,493	103	0,651	128	0,809	153	0,967	178	1,125
4	0,025	29	0,183	54	0,341	79	0,499	104	0,657	129	0,815	154	0,973	179	1,131
5	0,032	30	0,190	55	0,348	80	0,506	105	0,664	130	0,822	155	0,980	180	1,138
6	0,038	31	0,196	56	0,354	81	0,512	106	0,670	131	0,828	156	0,986	182	1,150
7	0,044	32	0,202	57	0,360	82	0,518	107	0,676	132	0,834	157	0,992	184	1,163
8	0,051	33	0,209	58	0,367	83	0,525	108	0,683	133	0,840	158	0,998	186	1,175
9	0,057	34	0,215	59	0,373	84	0,531	109	0,689	134	0,847	159	1,005	188	1,188
10	0,063	35	0,221	60	0,379	85	0,537	110	0,695	135	0,853	160	1,011	190	1,201
11	0,070	36	0,228	61	0,385	86	0,543	111	0,701	136	0,859	161	1,017	192	1,213
12	0,076	37	0,234	62	0,392	87	0,550	112	0,708	137	0,866	162	1,024	194	1,226
13	0,082	38	0,240	63	0,398	88	0,556	113	0,714	138	0,872	163	1,030	196	1,239
14	0,088	39	0,246	64	0,404	89	0,562	114	0,720	139	0,878	164	1,036	198	1,251
15	0,095	40	0,253	65	0,411	90	0,569	115	0,727	140	0,885	165	1,043	200	1,264
16	0,101	41	0,259	66	0,417	91	0,575	116	0,733	141	0,891	166	1,049	300	1,896
17	0,107	42	0,265	67	0,423	92	0,581	117	0,739	142	0,897	167	1,055	400	2,528
18	0,114	43	0,272	68	0,430	93	0,588	118	0,746	143	0,904	168	1,062	500	3,160
19	0,120	44	0,278	69	0,436	94	0,594	119	0,752	144	0,910	169	1,068	600	3,792
20	0,126	45	0,284	70	0,442	95	0,600	120	0,758	145	0,916	170	1,074	700	4,424
21	0,133	46	0,291	71	0,449	96	0,607	121	0,765	146	0,923	171	1,081	800	5,056
22	0,139	47	0,297	72	0,455	97	0,613	122	0,771	147	0,929	172	1,087	900	5,687
23	0,145	48	0,303	73	0,461	98	0,619	123	0,777	148	0,935	173	1,093	1000	6,319
24	0,152	49	0,310	74	0,468	99	0,626	124	0,784	149	0,942	174	1,100	1100	6,951
25	0,158	50	0,316	75	0,474	100	0,632	125	0,790	150	0,948	175	1,106	1200	7,583

* * The correction to be applied to the Tabular R.A. has the *opposite* sign to that of the variation of R.A. for one hour in the Nautical Almanac.

The correction to be applied to the Tabular N.P.D. has the *same* sign as that of the variation of declination for one hour in the Nautical Almanac.

APPARENT RIGHT ASCENSIONS

OBSERVED WITH

THE TRANSIT

IN THE YEAR 1849.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Jan. 2	(a) α Pegasi	37,2	51,3	4,9	18,9	33,1	46,6	0,6	22.56.18,95	+1,0	-3,9	+1,8	18,89	54,96	-0,64	22.57.13,92			T.
	α Andromedæ	55,0	10,0	25,3	40,5	56,0	11,1	26,2	23.59.40,58				40,45			0.0.35,45			T.
	Aldebaran	39,9	53,6	7,4	21,4	36,0	50,1	3,7	4.25.21,73				21,66	54,95		4.27.16,54			T.
	H. C. 8798	49,0	3,3	17,5	32,0	46,7	1,0	15,2	4.31.32,10				32,01			4.32.26,89			T.
	H. C. 9058	40,1	58,3	16,9	35,4	54,2	12,4	31,1	4.41.35,49				35,26			4.42.30,13			T.
	H. C. 9228	37,3	51,5	6,1	20,4	35,0	49,4	3,9	4.46.20,51				20,42			4.47.15,29			T.
	B.A.C. 1542	24,5	38,4	52,3	6,2	20,5	34,1	48,0	4.51.6,29				6,23			4.52.1,10			T.
	Rigel	42,3	55,9	9,4	23,0	37,0	50,3	3,9	5.6.23,11				23,15	54,88		5.7.18,01			T.
	β Tauri	5,4	20,8	36,2	51,4	7,2	22,1	37,3	5.15.51,48				51,35	54,89		5.16.46,21			T.
	(b) Hebe .....	....	44,1	57,3	11,1	25,1	38,3	....	5.50.11,18				11,16			5.51.6,01			T.
	Procyon	49,4	3,1	16,4	30,0	43,6	57,0	10,6	7.30.30,01				29,99	54,82		7.31.24,79			T.
	(c) Pollux	24,6	40,1	55,3	10,4	26,1	41,3	56,4	7.35.10,60				10,47	54,81		7.36.5,27			T.
Jan. 3	(d) α Ophiuchi	19,1	33,0	46,6	0,3	14,2	28,1	41,7	17.27.0,42				0,38	53,77	-0,71				T.
Jan. 4	(e) α Aquilæ	49,0	2,5	16,2	29,5	43,6	57,0	10,5	19.42.29,76				29,73	53,69					T.
Jan. 5	(f) Rigel	44,4	58,1	11,3	25,1	39,1	52,3	6,1	5.6.25,20				25,24	52,78	-0,70	5.7.17,97			T.
	(d)(g) β Tauri	7,6	23,2	38,3	53,4	9,3	24,3	39,6	5.15.53,67				53,54	52,70		5.16.46,27			T.
	(h) Hebe	53,0	6,4	20,0	33,5	47,2	0,7	....	5.47.33,56				33,54			5.48.26,25			T.
	(i) Sirius	56,2	10,3	24,2	38,1	52,6	6,3	20,2	6.37.38,28				38,36	52,65		6.38.31,05			T.
Jan. 6	(k) α Ceti	51,5	5,1	18,3	31,8	....	....	12,4	2.53.31,94			-3,3	31,96	51,99	-0,71	2.54.24,03			T.
	(k)(l) Rigel	45,1	58,5	12,0	25,6	39,6	52,9	6,3	5.6.25,71				25,77	52,24		5.7.17,78			T.
	(k) β Tauri	8,5	23,8	39,1	54,3	10,1	25,1	40,4	5.15.54,47				54,38	51,86		5.16.46,39			T.
Jan. 14	Sirius	58,3	12,3	26,0	40,0	54,6	8,2	22,3	6.37.40,24			-3,6	40,30	50,74	0,30				B.
	Procyon	53,9	7,2	20,7	34,2	48,1	1,7	14,9	7.30.34,39			+1,3	34,36	50,57					B.
Jan. 15	(m) α Arietis	6,2	20,7	34,9	49,6	4,7	18,8	33,7	1.57.49,80				49,70	50,89	0,29	1.58.40,60			B.
	ρ^s Eridani	20,1	33,7	47,2	1,0	14,9	28,0	41,8	2.56.0,95				0,97			2.56.51,89			B.
	Bessel III. 90 .....	....	....	5,9	19,7	33,3	47,0	0,5	3.4.19,70				19,72			3.5.10,64			B.
	40 Persei .....	....	....	43,0	59,1	16,0	31,9	47,8	3.31.59,43				59,28			3.32.50,20			B.
	Bessel III. 924	49,0	2,9	16,1	29,9	43,8	57,3	10,9	3.46.29,99				30,02			3.47.20,95			B.
	Aldebaran	43,8	57,8	11,8	25,8	39,9	53,7	7,7	4.26.25,79				25,72	50,81		4.27.16,65			B.
	Rigel	45,8	0,0	13,1	26,9	40,8	54,2	7,8	5.6.26,95				26,97	51,01		5.7.17,91			B.
	Hebe	35,1	48,9	2,1	16,0	29,8	43,0	....	5.40.15,93				15,90			5.41.6,85			B.
	α Orionis .....	....	....	....	10,0	23,9	37,1	50,7	5.46.10,07				10,04	50,91		5.47.0,99			B.
	α Hydræ	39,6	52,9	6,2	20,1	33,9	47,2	0,9	9.19.20,11				20,13	51,10		9.20.11,12			B.
Jan. 17	(n) α Ceti .....	....	....	....	32,2	46,1	59,3	12,9	5.53.32,39				32,37	51,45	0,34	2.54.23,83			B.
	40 Persei .....	....	....	42,5	58,9	15,3	31,2	47,3	3.31.58,91				58,76			3.32.50,23			B.
	Bessel III. 924	48,7	2,0	15,8	29,4	43,1	57,0	10,1	3.46.29,45				29,48			3.47.20,95			B.
	ω^s Tauri	51,8	6,0	20,1	34,8	49,0	3,3	17,8	4.7.34,69				34,60			4.8.26,08			B.
	Aldebaran	43,2	57,2	11,1	25,0	39,3	52,9	6,9	4.26.25,09				25,02	51,50		4.27.16,50			B.
	Rigel	45,9	59,2	12,5	26,2	40,2	53,4	6,9	5.6.26,33				26,35	51,61		5.7.17,84			B.
	β Tauri .....	....	....	39,2	54,9	10,4	25,5	40,8	5.15.54,85				54,72	51,48		5.16.46,21			B.
	(n) Hebe .....	....	....	....	22,5	34,0	48,0	....	5.39.7,65				7,62			5.39.59,12			B.
	Castor	19,9	36,0	51,3	7,5	23,8	39,1	55,1	7.24.7,53				7,39	51,42		7.24.58,91			B.
Jan. 20	Rigel	43,9	57,7	11,1	24,9	38,5	52,1	5,5	5.6.24,81			-3,5	24,84	53,11	0,51	5.7.17,92			B.
	(o) Hebe	57,1	10,6	23,9	37,6	51,8	4,9	....	5.38.37,77				37,74			5.39.30,84			B.
	α Orionis	26,9	40,7	54,0	7,8	21,8	35,0	48,8	5.46.7,86				7,83	53,10		5.47.0,93			B.
	Castor .....	....	34,1	50,1	5,7	21,9	37,7	....	7.24.5,90				5,76	53,07		7.24.58,90			B.
	(p) Procyon	51,2	4,8	18,1	31,9	45,4	59,0	12,1	7.30.31,78				31,76	53,21		7.31.24,90			B.
Jan. 22	(q) * N.P.D. 55°. 16'. ..	....	....	15,0	....	46,2	4,9	21,0	3.35.31,29				31,14		0,60	3.36.25,19			B.
	Bessel III. 924 .....	....	....	13,0	26,7	40,6	54,0	7,9	3.46.26,78				26,81			3.47.20,86			B.
	ω^s Tauri	49,0	3,3	17,5	31,9	46,3	0,8	14,9	4.7.31,95				31,87			4.8.25,93			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,362, -26°,890, -13°,537, -0°,065, +13°,616, +26°,877, +40°,362.

(a) Wire IV was written down 8,9. (b) The Planet faint, but observed satisfactorily: no object near it. (c) The temperature on Jan. 2 at 11h was at 25°. (d) Extremely unsteady. (e) 'Very good.' (f) The eye-piece misty and the field not well illumined: the sky had just become clear. (g) No definition. (h) The Planet bright and the observation satisfactory. (i) Fog, and the star too flaring and unsteady for accurate observation. (k) Seen with difficulty through cloud. (l) Corrected by -1". (m) Between Jan. 5 and Jan. 15 the temperature rose 9°. The clock's losing rate appears to increase when the Transit room is closed on account of cloudy weather. (n) Hurried, the observer being delayed at the Northumberland Dome. (o) The noted times have been increased by 1". (p) Cloudy during most of the evening. (q) Very faint. The observation has been corrected by -1".

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Aimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"				h.	m.	s.	
Jan. 22	Aldebaran.....	40,5	54,5	8,2	22,2	36,8	50,5	4,6	4. 26. 22,47	+1,0	-3,5	+1,3	22,40	54,07	0,60	4. 27. 16,47			B.
	H. C. 9058.....	40,6	59,0	17,3	36,0	55,0	13,2	32,0	4. 41. 36,16				35,96			4. 42. 30,03			B.
	Rigel.....	43,2	56,6	10,1	23,8	37,5	50,9	4,6	5. 6. 23,81				23,84	54,09		5. 7. 17,93			B.
	(a) β Tauri.....	6,2	21,9	36,9	52,1	7,9	22,9	38,1	5. 15. 52,28				52,16	54,01		5. 16. 46,25			B.
	Hebe.....	6,5	20,0	33,8	47,1	1,0	14,7	28,1	5. 36. 47,32				47,29			5. 37. 41,39			B.
	α Orionis.....	26,2	39,8	53,2	6,9	20,4	34,0	47,5	5. 46. 6,86				6,83	54,09		5. 47. 0,93			B.
	Sirius.....	54,5	8,9	22,8	36,8	50,9	4,8	19,0	6. 37. 36,82				36,88	54,15		6. 38. 31,01			B.
	Procyon.....	....	....	....	30,9	44,2	57,8	11,5	7. 30. 30,80				30,78	54,20		7. 31. 24,93			B.
Jan. 23	α Ceti.....	48,9	2,1	15,3	29,0	42,8	56,0	9,4	2. 53. 29,07				29,06	54,68	0,66	2. 54. 23,73			B.
	(b) 40 Persei.....	7,0	23,1	39,1	55,2	11,8	27,8	43,8	3. 31. 55,40				55,26			3. 32. 49,95			B.
	ω Tauri.....	48,3	2,8	16,9	31,2	45,9	0,1	14,5	4. 7. 31,38				31,30			4. 8. 26,00			B.
	Aldebaran.....	40,0	53,9	7,9	21,9	36,1	49,9	4,1	4. 26. 21,97				21,90	54,56		4. 27. 16,61			B.
	(c) Rigel.....	42,1	55,8	9,5	23,1	37,1	50,3	4,0	5. 6. 23,13				23,16	54,76		5. 7. 17,89			B.
	η Tauri.....	....	....	....	18,9	33,8	48,0	2,2	5. 9. 18,96				18,87			5. 10. 13,60			B.
	β Tauri.....	5,8	20,8	36,0	51,8	7,0	22,0	37,4	5. 15. 51,54				51,42	54,74		5. 16. 46,15			B.
	(d) H. C. 10208.....	....	55,9	10,2	24,9	39,8	54,0	....	5. 18. 24,96				24,87			5. 19. 19,60			B.
	(e) Rumker 1445.....	....	....	47,0	1,2	15,9	30,0	44,0	5. 21. 1,00				0,90			5. 21. 55,63			B.
	(f) Hebe.....	43,7	58,0	11,2	25,0	39,0	51,9	6,1	5. 36. 24,99				24,96			5. 37. 19,70			B.
	(g) α Orionis.....	25,8	39,0	52,8	6,1	20,1	33,4	46,9	5. 46. 6,30				6,27	54,65		5. 47. 1,02			B.
Jan. 26	(h) Sirius.....	53,8	8,1	22,1	36,1	50,2	4,3	18,1	6. 37. 36,10				36,16	54,87		6. 38. 30,93			B.
	(i) Procyon.....	....	3,1	16,4	29,9	43,9	57,1	....	7. 30. 30,08				30,06	54,92		7. 31. 24,86			B.
	(k) Aldebaran.....	....	51,8	5,4	19,6	33,9	47,7	1,8	4. 26. 19,70				19,63	56,79	0,59	4. 27. 16,45			B.
	β Tauri.....	3,8	19,1	33,8	49,4	5,0	20,1	35,4	5. 15. 49,52				49,40	56,73		5. 16. 46,24			B.
	Hebe.....	48,7	2,0	15,8	29,1	43,1	56,8	10,0	5. 35. 29,36				29,33			5. 36. 26,18			B.
	α Orionis.....	23,3	36,9	50,1	4,1	17,8	31,1	44,7	5. 46. 4,00				3,97	56,93		5. 47. 0,82			B.
	δ Ursæ Minoris SP.....	....	10,7	55,0	46,0	....	18,0	....	6. 19. 44,43				47,08			....			B.
	Sirius.....	51,9	5,9	19,8	33,9	48,1	2,0	16,1	6. 37. 33,96				34,02	56,99		6. 38. 30,89			B.
	Bessel VI. 1351....	17,1	31,0	45,0	58,8	13,0	26,9	40,9	6. 42. 58,96				59,01			6. 43. 55,89			B.
	(l) Piazz VI. 328....	3,1	16,9	30,9	44,7	58,7	12,3	26,2	6. 57. 44,69				44,74			6. 58. 41,62			B.
	Castor.....	14,7	30,7	46,1	2,2	18,2	33,9	50,0	7. 24. 2,26				2,12	56,73		7. 24. 59,01			B.
Jan. 29	Bessel VII. 835....	....	....	42,1	56,1	10,2	23,9	37,9	7. 25. 56,17				56,22			7. 26. 53,11			B.
	Procyon.....	47,5	1,2	14,5	28,0	41,9	55,1	8,7	7. 30. 28,13				28,11	56,88		7. 31. 25,01			B.
	Pollux.....	23,0	38,2	53,3	8,8	24,0	39,1	54,6	7. 35. 8,72				8,60	56,92		7. 36. 5,50			B.
	α Hydræ.....	....	47,1	0,6	14,1	28,0	41,6	54,9	9. 19. 14,26				14,29	57,10		9. 20. 11,23			B.
	α Ceti.....	....	....	....	....	39,9	53,1	6,5	2. 53. 26,16		-4,5	+0,4	26,06	57,60	0,06	....			B.
	(m) Regulus.....	....	55,9	9,1	23,2	37,0	50,9	....	9. 59. 23,22				23,09	57,59	0,05	....			B.
	(n) Iris.....	....	....	25,1	....	53,0	6,3	19,5	10. 10. 39,15				39,06			10. 11. 36,65			B.
	δ Ursæ Minoris....	....	....	2,3	49,8	40,0	23,0	10,5	18. 19. 50,51				46,83			....			B.
	α Arietis.....	59,2	13,8	28,2	42,8	57,9	12,1	26,8	1. 57. 42,97				42,78	57,56	0,12	1. 58. 40,45			B.
	(o) Aldebaran.....	37,0	50,9	4,8	19,3	33,0	46,7	0,6	4. 26. 18,90				18,73	57,63		4. 27. 16,41			B.
	Rigel.....	39,4	52,8	6,5	20,1	34,0	47,2	0,9	5. 6. 20,12				20,06	57,77		5. 7. 17,74			B.
Jan. 31	(p) Hebe.....	....	11,0	24,5	38,2	53,0	5,0	19,7	5. 34. 38,55				38,42			5. 35. 36,11			B.
	α Orionis.....	22,7	36,0	49,8	3,1	17,0	30,6	43,9	5. 46. 3,30				3,18	57,69		5. 47. 0,87			B.
	Castor.....	....	29,8	45,6	1,3	17,8	33,5	....	7. 24. 1,60				1,37	57,49		7. 24. 59,06			B.
	Procyon.....	....	....	....	27,0	41,0	54,3	7,9	7. 30. 27,23				27,14	57,86		7. 31. 24,83			B.
	Pollux.....	22,2	37,7	52,8	8,0	23,7	38,8	54,1	7. 35. 8,19				7,97	57,56		7. 36. 5,66			B.
	δ Cancri.....	....	29,1	43,1	57,2	11,8	25,8	....	7. 51. 57,40				57,24			7. 52. 54,94			B.
	(q) ϕ Cancri.....	57,1	12,1	27,2	42,7	58,1	12,9	28,0	8. 16. 42,58				42,37			8. 17. 40,07			B.
	ϵ Hydræ.....	9,7	23,0	36,6	50,2	4,1	17,3	30,8	8. 37. 50,24				50,12	57,78		8. 38. 47,82			B.
	α Hydræ.....	33,0	46,5	0,1	13,8	27,4	41,0	54,7	9. 19. 13,79				13,73	57,72		9. 20. 11,43			B.
	Regulus.....	42,1	55,2	9,2	23,0	36,8	50,3	4,3	9. 59. 22,98				22,85	57,85		10. 0. 20,56			B.
	Iris.....	4,0	17,2	30,8	44,1	57,9	11,1	24,9	10. 9. 44,29				44,20			10. 10. 41,91			B.
Feb. 8	Rigel.....	....	....	....	15,3	29,3	42,7	56,2	5. 6. 15,46		-3,7	+1,8	15,51	62,21	0,57	5. 7. 17,70			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',362, -26',890, -13',537, -0',065, +13',616, +26',877, +40',362.

(a) Very high wind all the evening. (b) Rather faint. (c) Temp. at 46°. (d) 'The following of two.' (e) 'Extremely faint: Mag. 10.' Possibly not the star observed Feb. 8. (f) Very faint. Two smaller objects followed. (g) Very irregular intervals. (h) Greatly diffused. (i) Misty cloud all over the sky. (k) Between Jan. 23 and Jan. 26 the temperature fell 6°. (l) The counting being 1° in advance, the two last wires have each been diminished 1°. (m) Faint: clouds just clearing off after rain. (n) Wires were lost by casual displacements of the Telescope, to which it was liable on account of too great counterpoise action. (o) The field not sufficiently illumined. Wire IV has been increased 1°. (p) Cloudy. (q) 'The preceding of two of nearly equal magnitude.'

RIGHT ASCENSIONS OBSERVED WITH THE TRANSIT IN THE YEAR 1849.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Feb. 8	β Tauri.....	.....	.....	.....	43,9	59,2	14,7	29,9	5. 15. 43,95	+1,0	-3,7	+1,8	43,83	62,14	0,57	5. 16. 46,02			B.
	H. C. 10208.....	33,9	48,0	2,8	17,2	32,1	46,8	1,1	5. 18. 17,42				17,33			5. 9. 19,19			B.
	(a) Rumker 1445.....	.....	24,6	39,2	54,0	8,8	23,1	.....	5. 20. 53,94				53,85			5. 21. 56,05			B.
	(b) 120 Tauri.....	57,1	11,2	25,1	39,5	53,9	7,9	22,1	5. 23. 39,55				39,48			5. 24. 41,68			B.
	Hebe.....	13,3	26,2	40,2	54,0	8,1	21,3	35,1	5. 34. 54,03				54,00			5. 35. 56,20			B.
	(c) Rumker 1592.....	.....	33,6	48,1	2,7	17,8	32,2	.....	5. 41. 2,88				2,79			5. 42. 5,00			B.
	α Orionis.....	18,1	31,2	45,1	58,5	12,2	25,4	39,2	5. 54. 58,53				58,51	62,27		5. 47. 0,72			B.
	(d) η Leporis.....	48,1	2,8	16,3	30,4	44,7	58,1	12,1	5. 48. 30,35				30,43			5. 49. 32,64			B.
	(e) Rumker 1654.....	31,8	46,2	1,0	15,6	.....	.....	.....	5. 51. 15,72				15,63			5. 52. 17,84			B.
	(e)(f) Rumker 1656..	.....	.....	2,8	17,8	32,5	47,0	1,8	5. 51. 17,69				17,60			5. 52. 19,81			B.
	(f) Bessel v. 1460 ...	18,7	32,1	45,5	59,2	13,1	26,4	40,0	5. 55. 59,29				59,28			5. 57. 1,49			B.
	(g) 5 Geminorum.....	.....	.....	1,2	15,6	30,8	45,1	59,9	6. 1. 15,74				15,64			6. 2. 17,85			B.
	B.A.C. 1994.....	49,1	2,7	15,9	29,8	43,4	56,8	10,1	6. 3. 29,69				29,73			6. 4. 31,94			B.
	8 Geminorum.....	.....	35,0	49,8	4,3	19,3	34,1	.....	6. 6. 4,50				4,40			6. 7. 6,61			B.
	δ Ursæ Minoris SP.	.....	6,0	52,0	.....	31,7	14,0	.....	6. 19. 41,21				44,40						B.
	(h) Argelander 7143..	.....	.....	.....	6,0	28,1	49,3	11,0	6. 31. 6,08				5,80			6. 32. 8,02			B.
	(i) * N.P.D. 65°. 43'.	39,0	53,8	8,2	23,0	38,1	52,7	7,6	6. 35. 23,20				23,10			6. 36. 25,32			B.
	(k) * N.P.D. 66°. 11'.	42,8	57,1	12,0	26,8	41,9	56,1	11,0	6. 40. 26,82				26,73			6. 41. 28,96			B.
	(l) H. C. 13279.....	.....	59,9	14,1	29,2	44,2	59,0	.....	6. 44. 29,28				29,18			6. 45. 31,41			B.
	Piazzi VI. 328....	57,6	11,2	25,2	39,2	53,5	7,0	21,0	6. 57. 39,25				39,33			6. 58. 41,57			B.
	Castor.....	9,1	25,0	40,7	56,8	13,1	28,8	44,5	7. 23. 56,86				56,72	62,12		7. 24. 58,97			B.
	(m) Procyon.....	42,2	55,9	9,3	22,3	36,3	49,5	3,3	7. 30. 22,68				22,67	62,31		7. 31. 24,92			B.
	Regulus.....	37,1	50,9	4,8	18,3	32,6	46,0	59,9	9. 59. 18,52				18,49	62,31		10. 0. 20,80			B.
	(n) Iris.....	13,1	26,3	39,8	53,2	6,9	20,3	33,8	10. 1. 53,34				53,34			10. 2. 55,65			B.
Feb. 10	ω^2 Tauri.....	.....	.....	8,1	22,3	37,1	51,1	5,3	4. 7. 22,45			-3,8	22,37		0,58	4. 8. 25,67			B.
	H. C. 8479.....	.....	.....	30,2	44,1	58,0	11,5	25,1	4. 20. 44,06				44,12			4. 21. 47,42			B.
	ρ Tauri.....	32,8	46,6	0,2	14,2	28,4	42,1	56,0	4. 24. 14,33				14,28			4. 25. 17,58			B.
	H. C. 8705.....	.....	.....	4,5	19,1	33,9	47,8	2,1	4. 28. 19,13				19,05			4. 29. 22,36			B.
	(o) * N.P.D. 69°. 42'.	43,8	57,8	12,0	26,0	40,9	55,1	9,8	4. 31. 26,49				26,41			4. 32. 29,72			B.
	(p) H. C. 9058.....	30,9	49,3	8,0	26,4	45,3	3,9	22,2	4. 41. 26,57				26,35			4. 42. 29,66			B.
	H. C. 9228.....	28,5	43,0	57,1	11,9	26,3	40,8	55,0	4. 46. 11,80				11,71			4. 47. 15,03			B.
	B.A.C. 1542.....	16,0	29,8	43,6	57,3	11,6	25,2	39,1	4. 50. 57,52				57,47			4. 52. 0,79			B.
	γ Tauri.....	.....	.....	47,2	1,9	16,9	31,0	45,3	4. 53. 2,02				1,93			4. 54. 5,25			B.
	(q) * N.P.D. 44°. 27'.	28,9	48,1	7,1	26,2	46,0	5,0	23,9	4. 57. 26,46				26,22			4. 58. 29,54			B.
	H. C. 9656.....	.....	8,1	27,0	46,1	5,8	24,6	.....	4. 59. 46,32				46,08			5. 0. 49,40			B.
	Rigel.....	33,8	47,1	0,8	14,4	28,0	41,2	55,0	5. 6. 14,33				14,37	63,32		5. 7. 17,69			B.
	(r) * N.P.D. 67°. 20'.	51,3	5,7	20,0	35,1	50,0	4,4	19,4	5. 10. 35,13				35,04			5. 11. 38,37			B.
	β Tauri.....	56,9	12,1	27,4	42,9	58,2	13,2	28,8	5. 15. 42,78				42,66	63,28		5. 16. 45,99			B.
	(s) Rumker 1445.....	8,8	23,2	37,9	52,4	7,6	21,8	36,8	5. 20. 52,64				52,54			5. 21. 55,87			B.
	(t) Hebe.....	35,7	49,1	2,9	16,8	30,8	44,3	58,1	5. 35. 16,82				16,78			5. 36. 20,12			B.
	(u) Rumker 1592.....	.....	.....	46,8	1,8	16,3	30,9	45,8	5. 41. 1,61				1,51			5. 42. 4,85			B.
	α Orionis.....	16,9	30,2	43,8	56,9	11,1	24,6	38,1	5. 45. 57,37				57,35	63,41		5. 47. 0,69			B.
	χ^3 Orionis.....	46,0	0,2	14,8	28,9	43,2	57,8	11,9	5. 53. 28,98				28,90			5. 54. 32,24			B.
	B.A.C. 2118.....	11,2	24,9	38,0	51,8	5,3	18,9	32,1	6. 22. 51,74				51,73			6. 23. 55,08			B.
	Sirius.....	45,2	59,2	13,1	27,2	41,8	55,4	9,4	6. 37. 27,33				27,42	63,48		6. 38. 30,78			B.
	(x) Castor.....	.....	.....	39,2	55,8	11,9	27,8	43,5	7. 23. 55,73				55,59	63,24		7. 24. 58,97			B.
	Iris.....	10,1	23,3	36,8	50,2	3,9	17,1	30,8	9. 59. 50,31				50,31			10. 0. 53,75			B.
Feb. 12	ω^2 Tauri.....	38,3	53,0	7,1	21,4	36,0	50,1	4,7	4. 7. 21,51			+1,0	21,40		0,30	4. 8. 25,90			B.
	(y) B.A.C. 1417.....	5,4	19,2	33,8	48,2	2,9	17,0	31,1	4. 25. 48,23				48,12			4. 26. 52,63			B.
	(z) H. C. 8705.....	.....	49,2	3,6	18,1	32,9	46,9	.....	4. 28. 18,14				18,03			4. 29. 22,54			B.
	H. C. 8806.....	29,3	47,4	5,3	23,8	42,0	0,0	18,1	4. 32. 23,70				23,49			4. 33. 28,00			B.
	H. C. 9058.....	.....	48,2	7,0	25,3	44,2	3,0	.....	4. 41. 25,54				25,32			4. 42. 29,83			B.
	B.A.C. 1542.....	14,9	28,9	42,1	56,2	10,8	24,2	38,0	4. 50. 56,44				56,35			4. 52. 0,86			B.
	Rumker 1382.....	25,8	39,1	53,1	6,8	21,0	34,9	48,8	4. 57. 7,07				6,99			4. 58. 11,50			B.
	H. C. 9656.....	.....	7,0	26,0	44,9	4,9	23,8	.....	4. 59. 45,32				45,08			5. 0. 49,59			B.
	108 Tauri.....	.....	.....	5,3	19,9	34,5	49,1	3,4	5. 5. 19,92				19,80			5. 6. 24,31			B.
	(aa) * N.P.D. 67°. 20'.	51,0	.....	18,3	34,2	49,2	3,3	17,0	5. 10. 33,97				33,85			5. 11. 38,37			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40°.362, - 26°.890, - 13°.537, - 0°.065, + 13°.616, + 26°.877, + 40°.362.

- (a) 'A star of Mag. 7.6.' See Jan. 23. (b) One of Mag. 5.6 preceded. (c) A fainter star of greater N.P.D. preceded. (d) Very unsteady.
 (e) Much radiation. The preceding star was brighter than the other and of greater N.P.D. (f) These stars were judged to be of the same magnitude.
 (g) Wires III and IV have been increased 1° conjecturally. (h) The catalogue number is that of Oeltzen's reduction of Argelander's Zones. (i) Used as a comparison star in an observation of Flora 1848 April 29, and considered to be of Mag. 8. (k) Perhaps the star observed with the Circle Feb. 10: if not, the N.P.D. is uncertain. (l) H. C. 13280 appears to be the same star. (m) No definition. (n) 'Good.' (o) Mag. 9.10. (p) 'Mag. 8.' (q) Wire VI was written down 4.0. This is not the star intended to be taken, and the N.P.D. is uncertain. (r) Wire II was set down 4.7: the mistake was noticed at the time of observation. (s) Another star near. (t) An object of greater N.P.D. passed wire VII at 36°. 3.1. (u) 'Mag. 8.9.' (x) Very faint: after 10^h the sky was very cloudy. (y) Of Mag. 8, and equal to another of less N.P.D. by B'. (z) 'Not of Mag. 5.6.' (aa) 'Very faint: of the 11th magnitude.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Altitude Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"		s.	s.	s.	h.	m.	s.
Feb. 12	β Tauri.....	55,9	11,0	26,1	41,8	57,2	12,1	27,8	5.15.41,70	+1,0	-3,8	+1,0	41,55	64,36	0,30	5.16.46,07			B.
	(a) Rumker 1445....	7,8	22,1	36,8	51,6	6,0	20,8	35,2	5.20.51,47				51,35			5.21.55,87			B.
	120 Tauri.....	....	9,0	23,0	37,2	52,0	5,8	....	5.23.37,40				37,30			5.24.41,82			B.
	α Orionis.....	15,4	29,1	42,8	56,0	10,0	23,6	37,0	5.45.56,27				56,21	64,52		5.47.0,73			B.
	η Leporis.....	....	0,2	13,9	28,2	42,0	55,9	....	5.48.28,04				28,07			5.49.32,59			B.
	(b) Rumker 1654....	29,6	44,0	58,8	13,4	28,3	43,0	57,8	5.51.13,55				13,42			5.52.17,94			B.
	Bessel v. 1460 ...	16,1	29,8	43,2	56,9	10,8	23,9	37,7	5.55.56,92				56,86			5.57.1,38			B.
	5 Geminorum.....	29,1	43,9	58,8	13,2	28,6	43,0	57,8	6.1.13,48				13,35			6.2.17,88			B.
	B.A.C. 1994.....	47,0	0,1	13,9	27,1	41,1	54,7	8,1	6.3.27,43				27,42			6.4.31,95			B.
	8 Geminorum.....	17,9	33,0	47,3	2,0	17,2	32,0	46,0	6.6.2,20				2,07			6.7.6,60			B.
	(c) B.A.C. 2042.....	49,1	4,0	18,2	33,1	48,1	2,8	17,3	6.11.33,23				33,10			6.12.37,63			B.
	H. C. 12217.....	18,9	32,9	48,1	2,8	18,0	32,3	47,2	6.15.2,88				2,75			6.16.7,28			B.
	(c)* N.P.D. 66°. 11'.	0,2	15,1	29,8	44,4	59,4	14,1	28,8	6.16.44,54				44,41			6.17.48,94			B.
	ν Geminorum.....	....	27,9	41,9	56,5	11,1	25,1	....	6.18.56,50				56,39			6.20.0,92			B.
	(d) B.A.C. 2118.....	10,0	23,8	37,0	50,6	4,1	17,8	31,0	6.22.50,61				50,56			6.23.55,09			B.
	Bessel vi. 809 ...	....	55,7	9,2	23,2	37,3	51,0	....	6.25.23,28				23,31			6.26.27,84			B.
	(e) Sirius.....	44,1	57,8	12,1	26,1	40,2	54,1	8,1	6.37.26,07				26,11	64,76		6.38.30,64			B.
	Castor.....	7,1	22,8	38,5	54,6	10,8	26,4	42,2	7.23.54,63				54,46	64,35		7.24.59,00			B.
	Procyon.....	39,9	53,5	7,1	20,3	34,2	47,4	1,1	7.30.20,50				20,45	64,51		7.31.24,99			B.
	ϵ Hydræ.....	2,8	16,1	29,7	43,2	57,1	10,3	24,0	8.37.43,31				43,25	64,69		8.38.47,81			B.
	α Hydræ.....	26,1	39,9	53,2	6,8	20,7	34,1	47,8	9.19.6,94				6,94	64,58		9.20.11,50			B.
	(f) Iris.....	6,1	....	33,0	46,2	0,2	13,1	27,0	9.57.46,44				46,40			9.58.50,97			B.
Feb. 13	Groombridge 851.	36,3	54,2	12,3	30,3	48,9	6,7	24,9	4.26.30,51				30,29		0,25	4.27.34,96			B.
	H. C. 8806.....	29,1	47,3	5,1	23,7	42,0	0,0	18,1	4.32.23,61				23,39			4.33.28,06			B.
	(g)* N.P.D. 66°. 11'.	40,0	54,9	9,3	24,0	39,0	53,8	8,2	6.40.24,17				24,04			6.41.28,73			B.
	Piazzi VI. 328 ...	55,1	8,8	22,5	36,8	50,7	4,4	18,3	6.57.36,66				36,69			6.58.41,38			B.
	λ Geminorum.....	39,1	53,2	7,1	21,1	35,6	49,4	3,4	7.8.21,27				21,17			7.9.25,86			B.
	Bessel vii. 835 ...	6,9	20,8	34,2	48,1	2,4	16,0	30,0	7.25.48,35				48,32			7.26.53,02			B.
	Procyon.....	39,9	53,2	6,6	20,2	33,9	47,2	0,8	7.30.20,25				20,20	64,75		7.31.24,90			B.
	Pollux.....	15,2	30,2	45,6	0,9	16,4	31,7	47,0	7.35.1,00				0,85	64,64		7.36.5,55			B.
	5 Cancri.....	8,0	22,1	36,0	50,1	4,6	18,3	32,6	7.51.50,24				50,14			7.52.54,84			B.
	(h) B.A.C. 2683.....	15,1	29,4	43,8	58,0	12,4	26,8	41,0	7.54.58,07				57,96			7.56.2,66			B.
	ϵ Hydræ.....	2,7	16,1	29,6	43,1	57,1	10,3	23,9	8.37.43,26				43,20	64,74		8.38.47,91			B.
	α Hydræ.....	26,0	39,6	53,0	6,9	20,4	33,9	47,3	9.19.6,73				6,73	64,80		9.20.11,45			B.
	Iris.....	4,2	17,8	31,0	44,8	58,3	11,7	25,1	9.56.44,70				44,66			9.57.49,38			B.
	Regulus.....	....	....	....	16,1	29,9	43,9	57,8	9.59.16,23				16,16	64,68		10.0.20,88			B.
	δ Leonis.....	17,6	32,0	46,2	1,0	15,6	29,8	44,2	11.5.0,91				0,79	64,67		11.6.5,52			B.
Feb. 14	(g)(i) Sirius.....	43,8	57,3	11,3	25,8	40,0	53,8	7,9	6.37.25,70				25,74	65,10	0,43				B.
Feb. 15	ρ Tauri.....	30,4	44,2	58,0	12,0	26,1	39,9	53,8	4.24.12,05				11,96		0,47	4.25.17,54			B.
	τ Tauri.....	22,9	37,3	51,7	6,4	21,1	35,4	50,0	4.32.6,40				6,28			4.33.11,86			B.
	Bessel iv. 1199 ...	2,1	16,1	30,0	43,9	58,0	11,5	25,6	4.52.43,89				43,80			4.53.49,38			B.
	(k)* N.P.D. 44°. 27'.	....	....	23,1	43,0	2,8	22,1	41,0	4.58.43,19				42,95			4.59.48,54			B.
	(k)* N.P.D. 44°. 32'.	10,7	30,0	49,2	8,4	28,1	46,9	6,1	5.0.8,49				8,25			5.1.13,84			B.
	108 Tauri.....	35,0	49,6	4,0	18,7	33,6	47,9	2,2	5.5.18,72				18,60			5.6.24,19			B.
	η Tauri.....	24,3	38,9	53,1	8,0	22,7	36,9	51,3	5.9.7,89				7,77			5.10.13,36			B.
	(l)* N.P.D. 67°. 2'.	23,0	36,4	50,5	5,3	20,4	35,0	49,4	5.17.5,72				5,59			5.18.11,18			B.
	119 Tauri.....	34,8	49,0	3,0	17,2	31,7	45,3	59,9	5.22.17,34				17,24			5.23.22,83			B.
	(h) Hebe.....	3,8	18,1	....	45,1	59,1	12,0	26,1	5.36.45,07				45,00			5.37.50,60			B.
	Rumker 1592....	15,2	30,0	44,6	59,2	14,3	28,8	43,4	5.40.59,36				59,23			5.42.4,83			B.
	α Orionis.....	14,6	28,0	41,6	55,1	9,1	22,4	36,0	5.45.55,26				55,20	65,49		5.47.0,80			B.
	η Leporis.....	....	59,1	13,0	27,1	41,0	54,9	....	5.48.27,02				27,05			5.49.32,65			B.
	χ^2 Orionis.....	43,9	58,0	12,2	26,7	41,0	55,1	9,5	5.53.26,63				26,52			5.54.32,12			B.
	68 Orionis.....	17,4	31,8	46,0	0,0	14,8	28,9	43,1	6.2.0,28				0,17			6.3.5,78			B.
	(m)* N.P.D. 65°. 48'.	13,0	28,0	42,6	57,2	12,2	26,9	41,5	6.12.57,35				57,22			6.14.2,83			B.
	ν Geminorum.....	11,3	26,8	41,0	55,3	10,0	24,0	38,3	6.18.55,24				55,13			6.20.0,74			B.
	(n) Bessel vi. 990 ...	36,7	50,2	4,0	18,0	32,0	46,0	59,8	6.31.18,10				18,12			6.32.23,74			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,362, -26°,890, -13°,537, -0°,065, +13°,616, +26°,877, +40°,362.

(a) Accompanied by a much smaller star. (b) Another of less N.P.D. was noticed. (c) Of the 8th magnitude. (d) 'The second in brightness of a great number.' (e) Beautifully defined. (f) The Telescope unsteady from the cause mentioned Jan. 30. This remark applies to most of the observations taken previous to the reversion of the instrument on Feb. 27. (g) Faint and diffused. (h) Faint. (i) Mist. (k) The N.P.D. of these stars are uncertain: the latter was taken for H. C. 9656. (l) Very faint: Mag. 9,10. (m) Mag. 9,10; the middle star of three. (n) Of the 6th magnitude by Bessel, of the 5th by H. C. Not in other catalogues.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h. m. s.	"	"				"	s.	s.	
Feb. 15	Sirius	43,0	57,0	11,1	24,8	39,2	53,1	7,0	6. 37. 25,03	+1,0	-3,8	+1,0	25,07	65,76	0,47	6. 38. 30,69	B.		
	H. C. 13279.....	56,3	11,0	25,7	40,9	55,7	....	6. 44. 25,92				25,79				6. 45. 31,41	B.	
	Castor.....	5,8	21,8	37,4	53,2	9,6	25,1	41,0	7. 23. 53,41				53,24	65,54		7. 24. 58,87	B.		
	Procyon.....	39,0	52,2	5,8	19,1	33,0	46,3	59,9	7. 30. 19,33				19,28	65,65		7. 31. 24,92	B.		
	Pollux.....	13,8	29,2	44,4	0,0	15,4	30,8	45,9	7. 34. 59,92				59,77	65,70		7. 36. 5,41	B.		
Feb. 16	(a) B.A.C. 1542.....	13,1	27,0	40,6	54,4	8,7	22,2	36,1	4. 50. 54,59				54,50		0,44	4. 52. 0,59	B.		
	Bessel iv. 1199 ...	....	....	29,0	43,0	57,1	11,0	24,3	4. 52. 43,04				42,96			4. 53. 49,05	B.
	m Tauri.....	44,0	58,1	12,0	26,2	40,8	54,9	9,0	4. 57. 26,43				26,33			4. 58. 32,42	B.		
	(b) Bessel v. 11.....	54,6	8,9	22,7	36,0	50,1	4,0	18,1	5. 0. 36,34				36,26			5. 1. 42,35	B.		
	(c) 108 Tauri.....	34,7	49,0	3,3	17,8	32,4	47,0	1,4	5. 5. 17,95				17,83			5. 6. 23,92	B.		
	(d) * N.P.D. 67°.20' ..	....	4,7	....	31,5	46,5	1,4	15,4	5. 10. 32,22				32,10			5. 11. 38,19	B.
	(e) * N.P.D. 67°.2' ..	....	....	50,3	4,5	20,0	34,1	48,9	5. 17. 4,95				4,83			5. 18. 10,93	B.
	119 Tauri.....	34,1	48,0	2,1	16,8	31,0	45,1	59,0	5. 22. 16,59				16,59			5. 23. 22,59	B.		
	120 Tauri.....	....	....	21,2	35,4	50,0	3,9	18,0	5. 23. 35,52				35,42			5. 24. 41,52	B.
	B.A.C. 1801.....	....	35,1	49,9	4,2	19,1	33,7	....	5. 33. 4,40				4,28			5. 34. 10,38	B.
	(f) Hebe.....	26,1	40,1	53,4	7,0	21,3	34,9	48,7	5. 37. 7,36				7,29			5. 38. 13,39	B.		
	Rumker 1592.....	14,7	29,1	43,9	59,0	13,8	28,2	42,9	5. 40. 58,80				58,67			5. 42. 4,77	B.		
	(g) α Orionis.....	14,0	27,6	41,0	54,5	8,4	21,8	35,3	5. 45. 54,66				54,60	66,08		5. 47. 0,71	B.		
	(h) η Leporis.....	44,9	58,9	12,4	26,6	40,8	54,2	8,0	5. 48. 26,55				26,58			5. 49. 32,69	B.		
	(i) Rumker 1654.....	27,8	42,4	57,0	11,9	26,9	41,0	56,0	5. 51. 11,85				11,72			5. 52. 17,83	B.		
	χ ⁸ Orionis.....	43,0	57,4	11,9	26,0	40,8	54,9	9,0	5. 53. 26,14				26,03			5. 54. 32,14	B.		
	(k) Bessel v. 1460 ...	14,7	28,2	41,6	55,2	9,1	22,2	35,9	5. 55. 55,27				55,21			5. 57. 1,32	B.		
	5 Geminorum.....	27,1	42,1	56,9	11,8	26,8	41,4	56,0	6. 1. 11,73				11,59			6. 2. 17,70	B.		
	B.A.C. 1994.....	45,1	58,7	12,0	25,8	39,6	53,0	6,4	6. 3. 25,80				25,79			6. 4. 31,90	B.		
	8 Geminorum.....	16,4	31,1	46,0	0,7	15,9	30,0	44,9	6. 6. 0,74				0,58			6. 7. 6,69	B.		
	δ Ursæ Minoris SP.	19,5	6,0	....	....	26,0	12,5	0,8	6. 19. 39,33				42,01			6. 20. 48,12	B.
	(h) Sirius.....	42,3	56,4	10,5	24,6	38,8	52,8	6,7	6. 37. 24,59				24,63	66,19		6. 38. 30,75	B.		
	Castor.....	5,1	21,1	36,9	53,0	9,1	24,9	40,7	7. 23. 52,97				52,80	65,98		7. 24. 58,93	B.		
	Procyon.....	38,2	51,8	5,0	18,7	32,6	45,9	59,1	7. 30. 18,76				18,71	66,22		7. 31. 24,85	B.		
	Pollux.....	13,7	29,1	44,2	59,4	15,1	30,1	45,2	7. 34. 59,55				59,40	66,06		7. 36. 5,54	B.		
	(l) ε Hydræ.....	1,2	14,8	28,1	41,8	55,7	8,9	22,7	8. 37. 41,88				41,82	66,11		8. 38. 47,98	B.		
	(m) α Hydræ.....	24,8	38,1	51,3	5,2	19,1	32,2	46,1	9. 19. 5,26				5,26	66,27		9. 20. 11,43	B.		
	Iris.....	58,3	11,9	25,1	38,8	52,2	5,8	19,1	9. 53. 38,75				38,71			9. 54. 44,89	B.		
	(h) Regulus.....	33,1	47,1	0,8	14,7	28,8	42,2	56,1	9. 59. 14,69				14,62	66,24		10. 0. 20,80	B.		
	(n) δ Ursæ Minoris...	....	....	....	....	35,0	18,7	5,0	18. 19. 45,69				42,85			18. 20. 49,19	B.
Feb. 17	(e) Hebe.....	50,2	4,4	17,6	32,2	46,1	59,3	13,7	5. 37. 31,93				31,86		0,41	5. 38. 38,36	B.		
	α Orionis.....	13,6	27,1	40,8	54,1	8,1	21,3	35,0	5. 45. 54,29				54,23	66,43		5. 47. 0,73	B.		
	δ Ursæ Minoris SP.	....	....	52,0	43,5	28,8	13,8	59,4	6. 19. 41,02				43,70			6. 20. 50,21	B.
	26 Geminorum.....	....	....	17,1	31,2	45,8	59,8	13,8	6. 32. 31,41				31,31			6. 33. 37,82	B.
	* N.P.D. 65°. 43' ..	34,8	49,4	3,9	19,0	34,0	48,2	3,2	6. 35. 18,93				18,80			6. 36. 25,31	B.		
	Sirius.....	42,1	56,1	10,0	24,1	38,3	51,9	6,3	6. 37. 24,11				24,15	66,65		6. 38. 30,66	B.		
	(o) * N.P.D. 66°. 11'	38,1	52,9	7,6	22,2	37,1	52,0	6,7	6. 40. 22,37				22,24			6. 41. 28,75	B.		
	Piazzi VI. 328....	53,1	6,8	20,8	34,8	48,9	2,7	16,7	6. 57. 34,83				84,86			6. 58. 41,38	B.		
	Castor.....	4,8	20,9	36,6	52,6	8,8	24,1	40,3	7. 23. 52,58				52,41	66,36		7. 24. 58,93	B.		
	Procyon.....	38,1	51,2	4,8	18,0	31,9	45,6	59,1	7. 30. 18,39				18,34	66,58		7. 31. 24,87	B.		
	Pollux.....	13,1	28,8	43,8	58,7	14,8	29,8	44,9	7. 34. 59,13				58,98	66,47		7. 36. 5,51	B.		
	ε Hydræ.....	0,8	14,2	27,7	41,3	55,0	8,7	21,9	8. 37. 41,37				41,31	66,62		8. 38. 47,86	B.		
	(p) Iris.....	....	....	23,1	37,0	50,8	4,1	17,5	9. 52. 37,03				36,99			9. 53. 43,56	B.
Feb. 19	(q) Hebe.....	45,0	59,5	....	26,8	39,8	....	7,7	5. 38. 26,50		-4,2		26,40		0,61	5. 39. 33,77	B.
	(r) α Orionis.....	12,8	26,1	39,7	53,1	7,1	20,4	34,1	5. 45. 53,33				53,25	67,38		5. 47. 0,62	B.		
	(s) Rumker 1654.....	....	41,2	55,7	10,0	25,1	39,9	....	5. 51. 10,38				10,23			5. 52. 17,61	B.
	χ ⁸ Orionis.....	42,0	56,1	10,3	24,8	39,1	53,2	7,7	5. 53. 24,74				24,61			5. 54. 31,99	B.		
	5 Geminorum.....	25,9	40,9	55,7	10,4	25,6	40,0	54,9	6. 1. 10,48				10,32			6. 2. 17,70	B.		
	B.A.C. 1994.....	44,1	57,3	10,9	24,2	38,2	51,8	5,1	6. 3. 24,51				24,49			6. 4. 31,87	B.		
	B.A.C. 2042.....	46,1	0,8	15,1	30,0	45,0	59,6	14,1	6. 11. 30,10				29,95			6. 12. 37,34	B.		
	H. C. 12217.....	16,0	30,8	45,1	59,9	15,0	29,4	44,1	6. 15. 0,05				59,90			6. 16. 7,29	B.		

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,362, -26°,890, -13°,537, -0°,065, +13°,616, +26°,877, +40°,362.

(a) Faint from cloud. (b) Very faint. 'The north-preceding of two.' The other is Bessel v. 12. (c) Very unsteady. (d) Very faint and difficult to observe on account of cloud. (e) Faint. (f) Extremely faint. (g) Great radiation. (h) Bad definition. (i) 'The southern and brighter of two.' The noted times have been diminished 1^m. (k) Wire IV was set down 54,2. (l) Badly defined and faint. (m) Difficult to observe, so diffused. (n) Extremely faint and unsteady. (o) 'Another precedes.' (p) Wires I and II lost by the motion of the Telescope. See Jan. 30. (q) Clouds passing and the planet very faint. The intervals are irregular. (r) Had a disk. (s) 'The southern and brighter.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
Feb. 19	* N.P.D. 66°. 11'.	57,1	11,9	26,7	41,3	56,2	11,0	25,7	6. 16. 41,41	+1,0	-4,2	+1,0	41,26		0,61	6. 17. 48,65	B.		
	H. C. 12358.....	....	20,0	34,8	49,1	4,0	17,9	....	6. 18. 49,16				49,02			6. 19. 56,41	B.
	(a)* N.P.D. 84°. 56'.	3,7	17,1	30,6	44,1	58,1	11,3	25,0	6. 22. 44,27				44,20			6. 23. 51,59	B.		
	Bessel vi. 809 ...	....	52,8	6,3	20,2	34,4	48,1	....	6. 25. 20,36				20,38			6. 26. 27,77	B.
	Bessel vi. 990 ...	34,8	48,7	2,3	16,1	30,3	44,0	58,0	6. 31. 16,32				16,33			6. 32. 23,73	B.		
	(b) H. C. 12887.....	....	38,3	51,8	5,0	19,0	32,2	....	6. 34. 5,26				5,20			6. 35. 12,60	B.
	(c) 11 Canis Majoris..	9,7	23,7	37,4	51,4	5,4	....	33,1	6. 38. 51,40				51,42			6. 39. 58,82	B.	
	Bessel vi. 1351 ...	6,3	20,4	34,2	48,2	2,2	16,0	30,0	6. 42. 48,19				48,21			6. 43. 55,61	B.		
	Castor	4,0	19,9	35,5	51,8	7,9	23,4	39,1	7. 23. 51,65				51,45	67,30		7. 24. 58,87	B.		
	Procyon.....	36,9	50,2	3,9	17,3	31,2	44,6	58,0	7. 30. 17,45				17,38	67,53		7. 31. 24,80	B.		
	Pollux.....	....	....	....	58,1	13,7	28,9	44,1	7. 34. 58,24				58,06	67,38		7. 36. 5,49	B.
	ε Hydræ	59,9	13,5	27,0	40,6	54,1	7,8	21,1	8. 37. 40,57				40,49	67,44		8. 38. 47,94	B.		
	(c) α Hydræ	23,2	36,9	50,1	4,1	17,8	31,2	44,9	9. 19. 4,03				4,01	67,53		9. 20. 11,48	B.		
Feb. 20	(d) Procyon .....	....	50,0	3,2	16,9	30,4	43,9	....	7. 30. 16,88				16,81	68,09	0,33	7. 31. 24,91	B.
	Pollux.....	....	....	42,0	57,3	12,9	28,0	43,2	7. 34. 57,39				57,21	68,22		7. 36. 5,31	B.
	(e) Argelander 8331..	....	9,6	32,2	54,3	16,7	39,0	....	7. 39. 54,36				54,02			7. 41. 2,12	B.
	84 Geminorum....	12,0	26,8	41,3	55,9	10,8	25,0	39,6	7. 42. 55,92				55,77			7. 44. 3,88	B.		
	(f) 5 Cancr.....	4,9	19,0	32,8	47,1	1,0	15,1	29,1	7. 51. 47,00				46,88			7. 52. 54,99	B.		
	B.A.C. 2683.....	12,0	26,1	40,1	54,5	8,8	23,0	37,4	7. 54. 54,56				54,43			7. 56. 2,54	B.		
	(f) α Hydræ.....	22,6	36,1	49,8	3,3	17,0	30,8	44,2	9. 19. 3,40				3,38	68,16		9. 20. 11,51	B.		
	(g) Iris.....	53,9	7,1	20,7	34,2	48,1	1,0	14,8	9. 49. 34,26				34,20			9. 50. 42,34	B.		
	Regulus.....	31,8	45,2	59,1	13,0	27,0	40,7	54,1	9. 59. 12,98				12,89	68,00		10. 0. 21,03	B.		
Feb. 22	α Orionis	11,2	24,8	38,3	51,9	5,7	18,8	32,7	5. 45. 51,91				51,83	68,76	0,34	5. 47. 0,57	B.		
	68 Orionis.....	....	28,3	42,7	57,0	11,7	25,9	....	6. 1. 57,12				56,99			6. 3. 5,74	B.
	(h)* N.P.D. 65°. 48'.	10,1	24,3	39,2	54,1	9,2	24,2	38,7	6. 12. 54,26				54,11			6. 14. 2,86	B.		
	(i)* N.P.D. 66°. 11'.	55,9	10,9	25,2	40,1	55,1	9,8	24,2	6. 16. 40,17				40,02			6. 17. 48,77	B.		
	(k)* N.P.D. 84°. 56'.	2,3	15,9	29,1	43,0	56,5	9,9	23,5	6. 22. 42,88				42,81			6. 23. 51,56	B.		
	Bessel vi. 809 ...	....	51,2	5,1	19,0	33,2	47,1	....	6. 25. 19,12				19,14			6. 26. 27,89	B.
	26 Geminorum ...	....	0,9	14,8	29,1	43,3	57,2	....	6. 32. 29,06				28,93			6. 33. 37,68	B.
	* N.P.D. 65°. 43'.	32,2	47,0	1,8	16,5	31,3	45,9	1,0	6. 35. 16,53				16,37			6. 36. 25,12	B.		
	Sirius.....	39,8	53,8	7,8	21,7	36,3	50,2	4,0	6. 37. 21,94				21,97	68,76		6. 38. 30,72	B.		
	B.A.C. 2283.....	39,8	54,2	9,0	23,8	38,8	53,1	7,9	6. 50. 23,80				23,65			6. 51. 32,41	B.		
	(l)* N.P.D. 66°. 3'.	9,9	24,7	39,1	53,8	8,8	23,4	38,2	6. 54. 53,98				53,83			6. 56. 2,59	B.		
	H. C. 13804.....	16,3	31,2	46,0	0,5	15,4	30,1	44,9	6. 59. 0,63				0,48			7. 0. 9,24	B.		
	48 Geminorum ...	24,0	38,7	53,2	8,0	23,1	37,9	52,7	7. 2. 8,23				8,08			7. 3. 16,84	B.		
	Rumker 2152. ....	....	43,1	57,9	12,8	27,9	42,2	....	7. 5. 12,78				12,63			7. 6. 21,39	B.
	λ Geminorum....	35,0	49,0	3,0	17,1	31,4	45,3	59,4	7. 8. 17,17				17,05			7. 9. 25,81	B.		
	Castor	2,2	18,5	34,2	50,1	6,3	22,1	38,0	7. 23. 50,20				50,00	68,71		7. 24. 58,76	B.		
	Procyon.....	....	49,0	2,3	16,2	30,0	43,1	....	7. 30. 16,12				16,05	68,83		7. 31. 24,82	B.
	α Hydræ.....	22,1	35,6	49,0	2,8	16,6	29,9	43,7	9. 19. 2,81				2,79	68,74		9. 20. 11,58	B.		
	(g) Iris.....	55,0	8,0	21,7	35,1	48,9	2,1	15,8	9. 47. 35,23				35,17			9. 48. 43,97	B.		
Feb. 26	(m) Bessel v. 802.....	43,3	57,8	12,1	25,8	38,8	52,1	5,8	5. 30. 25,10				25,05		0,04	5. 31. 35,20	B.		
	(n) α Orionis.....	....	23,4	36,9	50,3	4,2	17,8	31,2	5. 45. 50,52				50,47	70,05		5. 47. 0,62	B.	
	(o) Bessel v. 1284 ...	....	39,6	52,7	6,2	20,1	33,4	....	5. 49. 6,40				6,34			5. 50. 16,49	B.
	Bessel vi. 809 ...	36,0	50,1	3,7	17,7	31,9	45,6	59,2	6. 25. 17,75				17,78			6. 26. 27,93	B.		
	H. C. 12821.....	42,2	55,9	9,1	22,8	36,4	49,8	3,2	6. 31. 22,77				22,74			6. 32. 32,89	B.		
	(p)* N.P.D. 65°. 45'.	23,9	38,0	52,8	8,2	22,7	37,2	51,7	6. 36. 7,79				7,67			6. 37. 17,82	B.		
	11 Canis Majoris..	7,2	21,0	34,9	48,9	3,0	16,7	30,3	6. 38. 48,86				48,89			6. 39. 59,04	B.		
	Bessel vi. 1351 ...	3,8	18,0	31,4	45,4	59,9	13,4	27,1	6. 42. 45,57				45,60			6. 43. 55,75	B.		
	H. C. 13313.....	....	....	1,6	16,1	31,2	45,8	0,6	6. 45. 16,31				16,19			6. 46. 26,34	B.
	B.A.C. 2283.....	38,1	52,9	7,4	22,1	36,9	51,9	6,3	6. 50. 22,23				22,11			6. 51. 32,26	B.		
	* N.P.D. 66°. 3'.	8,8	23,3	37,8	52,6	7,8	21,9	36,7	6. 54. 52,70				52,58			6. 56. 2,73	B.		
	* N.P.D. 65°. 52'.	....	....	40,3	54,9	9,9	24,7	39,3	6. 56. 55,08				54,96			6. 58. 5,11	B.
	48 Geminorum....	22,7	37,2	52,0	7,0	21,9	36,6	51,1	7. 2. 6,93				6,81			7. 3. 16,96	B.		
	Rumker 2152.	27,1	41,9	56,6	11,2	26,3	40,9	55,4	7. 5. 11,34				11,22			7. 6. 21,37	B.		
	(q) Castor	0,7	17,0	32,8	48,7	4,8	20,4	36,4	7. 23. 48,69				48,53	70,13		7. 24. 58,68	B.		

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,362, -26°,890, -13°,537, -0°,065, +13°,616, +26°,877, +40°,362.

(a) The N.P.D. is uncertain. See note to B.A.C. 2118 Feb. 12. (b) 'Mag. 6,7.' This is Bessel vi. 1074, the N.P.D. of which appears to be 10' too small. (c) Cloudy. (d) The clouds had just cleared off after heavy rain, and the stars appeared distorted blotches of light. (e) 'The north-preceding of two.' (f) Blazing. (g) 'Good.' (h) 'A brighter south-following.' (i) Disturbance. (k) The N.P.D. is uncertain. (l) Mag. 9,10. (m) 'Very faint: of 11th Mag.' Mag. 9 by Bessel. (n) Great scintillation. The temperature Feb. 26-28 ranged between 35° and 31°, producing apparently an acceleration of the clock's rate. (o) 'The south-preceding of two equal.' (p) Mag. 9. 'The intervals are irregular.' (q) Very unsteady.

RIGHT ASCENSIONS OBSERVED WITH THE TRANSIT IN THE YEAR 1849.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
Feb. 26	Procyon	34.2	47.3	1.1	14.7	28.4	42.0	55.1	7.30.14.69	+1.0	-3.7	+1.0	14.65	70.18	0.05	7.31.24.80	B.		
	H. C. 15112.....	36.2	50.8	5.1	19.9	35.0	48.9	4.1	7.37.20.00				19.88			7.38.30.03	B.		
	84 Geminorum....	10.0	24.7	39.1	53.8	8.4	22.8	37.2	7.42.53.71				53.60			7.44.3.75	B.		
	(a) ϵ Hydræ	57.1	10.8	24.0	37.9	51.7	5.0	18.4	8.37.37.85				37.80	70.09		8.38.47.95	B.		
	(a) α Hydræ	20.4	34.0	47.7	1.1	15.0	28.6	42.1	9.19.1.27				1.28	70.24		9.20.11.44	B.		
	(b) Iris.....	....	20.0	....	....	59.8	....	26.7	9.43.46.45				46.41			9.44.56.57	B.
	(a) δ Leonis	12.0	26.8	41.1	55.7	10.0	24.2	38.9	11.4.55.53				55.42	70.19		11.6.5.58	B.		
Feb. 27	(c) m Tauri.....	39.8	54.0	7.8	....	....	....	....	4.57.22.26				22.16		-0.15	4.58.32.27	B.
	(d) Sirius.....	....	52.2	6.1	20.2	34.7	48.3	....	6.37.20.30				20.34	70.31		6.38.30.44	B.
	Bessel v. 1351 ...	3.3	16.7	31.3	45.3	59.7	13.2	27.2	6.42.45.24				45.27			6.43.55.37	B.		
	B.A.C. 2283	38.2	53.0	7.3	22.0	37.1	51.8	6.2	6.50.22.23				22.11			6.51.32.21	B.		
	(e) * N.P.D. 66°. 3' ..	8.3	....	36.6	52.0	7.4	21.7	36.9	6.54.52.25				52.13			6.56.2.23	B.	
	(d) H. C. 13804.....	15.0	29.8	44.3	59.1	14.2	28.8	43.2	6.58.59.20				59.08			7.0.9.18	B.		
	48 Geminorum....	22.5	37.2	51.9	6.9	21.8	36.2	51.0	7.2.6.79				6.67			7.3.16.77	B.		
	Rumker 2152.....	27.0	41.9	56.6	11.2	26.2	40.9	55.6	7.5.11.34				11.22			7.6.21.32	B.		
	λ Geminorum.....	33.7	47.6	1.9	15.8	30.0	44.0	58.0	7.8.15.86				15.77			7.9.25.87	B.		
	H. C. 14350.....	27.7	42.1	56.8	11.2	26.4	40.9	55.3	7.14.11.48				11.36			7.15.21.45	B.		
	Castor	1.2	17.3	32.9	48.9	4.9	20.8	36.6	7.23.48.95				48.79	69.86		7.24.58.88	B.		
	Procyon	34.0	47.8	1.1	14.7	28.4	41.9	55.2	7.30.14.73				14.68	70.14		7.31.24.77	B.		
	Pollux .....	....	....	39.9	55.2	11.0	26.1	41.1	7.34.55.37				55.23	70.12		7.36.5.32	B.
	(f) 82 Geminorum ...	39.0	53.4	8.0	22.8	37.8	52.0	7.0	7.38.22.85				22.73			7.39.32.82	B.		
	Rumker 2467.....	20.2	34.8	48.8	3.0	17.3	31.3	45.8	8.9.3.03				2.93			8.10.13.02	B.		
	ϵ Hydræ	57.2	10.8	24.0	37.8	51.7	4.9	18.6	8.37.37.86				37.81	70.08		8.38.47.90	B.		
	(g) α Hydræ	20.9	34.1	47.8	1.3	15.1	28.7	42.1	9.19.1.43				1.43	70.09		9.20.11.51	B.		
	Iris.....	....	....	37.8	51.6	5.1	18.6	32.1	9.42.51.56				51.52			9.44.1.60	B.
	Regulus	29.7	43.2	57.1	10.9	24.8	38.6	52.1	9.59.10.91				10.85	70.05		10.0.20.93	B.		
Feb. 28	(h) Procyon	34.8	48.2	1.6	15.2	28.9	42.2	55.8	7.30.15.24	-0.4	-6.1	+2.8	15.06	69.75	-0.20	7.31.24.91	B.		
	Pollux.....	10.2	25.1	40.2	55.7	11.1	26.2	41.7	7.34.55.75				55.37	69.96		7.36.5.22	B.		
	Argelander 8357..	49.1	11.8	34.0	56.8	19.2	41.6	3.9	7.40.56.63				55.90			7.42.5.75	B.		
	5 Cancri	3.1	17.0	31.1	45.4	59.6	13.0	27.6	7.51.45.26				44.99			7.52.54.84	B.		
	B.A.C. 2683.....	10.1	24.4	38.6	52.9	7.2	21.6	35.9	7.54.52.96				52.67			7.56.2.51	B.		
	Argelander 9165..	2.8	24.7	46.1	8.7	30.8	52.6	14.6	8.28.8.62				7.91			8.29.17.75	B.		
	ϵ Hydræ	57.6	11.0	24.5	38.2	51.9	5.2	18.9	8.37.38.19				38.00	69.88		8.38.47.84	B.		
	α Hydræ	21.0	34.4	48.1	2.0	15.3	29.0	42.4	9.19.1.74				1.67	69.85		9.20.11.50	B.		
	Iris.....	17.7	31.2	44.7	58.4	12.0	25.1	38.8	9.41.58.27				58.10			9.43.7.93	B.		
	Regulus.....	30.1	43.9	57.3	11.7	25.2	38.8	52.8	9.59.11.40				11.16	69.75		10.0.20.99	B.		
Mar. 1	(i) H. C. 17647.....	46.0	59.6	13.2	27.1	41.1	54.9	8.8	8.47.27.24				27.22		0.02	8.48.36.94	B.		
Mar. 2	(k) Rigel.....	26.8	40.2	53.9	7.8	21.3	34.8	48.1	5.6.7.56				7.49	69.86	0.40	5.7.17.34	B.		
	(l) B.A.C. 1656.....	40.5	54.1	7.5	21.1	34.9	48.1	2.0	5.12.21.17				20.97			5.13.30.83	B.		
	β Tauri.....	50.2	5.4	20.5	36.0	51.2	6.8	21.9	5.15.36.00				35.62	69.96		5.16.45.48	B.		
	Iris.....	....	....	....	....	27.9	41.0	54.8	9.40.14.21				14.04			9.41.23.97	B.
	Regulus .....	....	44.1	57.3	11.2	25.2	38.9	....	9.59.11.34				11.10	69.81		10.0.21.03	B.
Mar. 3	(m) Hebe.....	21.8	....	49.3	3.9	17.6	....	46.6	5.46.3.84				3.59		0.52	5.47.13.98	B.
	Sirius	37.9	52.0	5.9	20.2	34.4	48.1	2.0	6.37.20.07				20.07	70.51		6.38.30.48	B.		
	Argelander 7375..	24.7	46.2	8.2	30.9	52.9	15.0	37.0	6.44.30.70				29.98			6.45.40.39	B.		
	* N.P.D. 66°. 3' ..	8.4	23.0	37.8	52.8	7.5	22.0	36.5	6.54.52.57				52.24			6.56.2.66	B.		
	48 Geminorum ...	....	37.0	51.8	6.8	21.5	36.1	....	7.2.6.64				6.31			7.3.16.73	B.
	(n) λ Geminorum.....	33.5	47.4	1.4	15.7	30.0	43.9	57.8	7.8.15.67				15.40			7.9.25.82	B.		
	(c) Castor .....	....	....	32.1	....	4.3	20.3	35.9	7.23.48.30				47.88	70.71		7.24.58.31	B.
	Procyon	34.1	47.8	1.1	14.9	28.3	41.8	55.1	7.30.14.73				14.55	70.23		7.31.24.98	B.		
	Pollux.....	....	....	39.8	55.1	10.7	25.8	41.0	7.34.55.19				54.82	70.47		7.36.5.25	B.
	ϵ Hydræ .....	....	10.7	23.9	37.9	51.6	4.9	....	8.37.37.80				37.61	70.25		8.38.48.07	B.
Mar. 5	* N.P.D. 66°. 3' ..	....	21.9	36.2	51.3	6.0	20.9	....	6.54.51.26				50.93		0.50	6.56.2.35	B.

ILLUMINATION EAST. From Feb. 28, ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^{\circ}.362$, $-26^{\circ}.890$, $-13^{\circ}.537$, $-0^{\circ}.065$, $+13^{\circ}.616$, $+26^{\circ}.877$, $+40^{\circ}.362$. From Feb. 28, $-40^{\circ}.362$, $-26^{\circ}.877$, $-13^{\circ}.616$, $+0^{\circ}.065$, $+13^{\circ}.537$, $+26^{\circ}.890$, $+40^{\circ}.362$.

(a) Very unsteady. (b) Scarcely visible on account of cloud. (c) Cloudy. (d) Faint. (e) 'Mag. 10.11.' (f) 'Mag. 6.' Taken for H. C. 15112 which precedes about 1^m. (g) Corrected by +15". (h) Bad definition. The sky just clear after a great fall of snow. (i) No clock star could be obtained. The losing rate 0.02, used from 0^h of March 1, is that given by comparing the clock-errors of Feb. 28 and March 2. (j) The temperature was at 40° at 11^h of March 2. (l) Clouds passing. (m) No other object visible. (n) Very faint.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h. m. s.	"	"				"	s.	s.	
Mar. 5	* N.P.D. 65°. 52' . . . . .	....	....	39,0	54,0	8,4	22,8	38,0	6. 56. 53,70	-0,4	-6,1	+2,8	53,36		0,50	6. 58. 4,78	B.
	H. C. 13856 . . . . .	....	39,5	54,1	9,2	24,0	38,9	....	7. 0. 9,14				8,80			7. 1. 20,23	B.
	48 Geminorum	21,0	35,9	50,3	5,6	20,1	35,0	49,9	7. 2. 5,40				5,06			7. 3. 16,49	B.		
	Rumker 2152	25,9	40,2	55,1	10,1	25,0	39,4	54,1	7. 5. 9,97				9,63			7. 6. 21,06	B.		
	λ Geminorum	32,3	46,3	0,3	14,7	28,8	42,7	56,8	7. 8. 14,56				14,29			7. 9. 25,72	B.		
	H. C. 14722	14,0	27,5	42,0	56,9	11,8	26,4	41,0	7. 24. 57,09				56,76			7. 26. 8,19	B.		
	Procyon	33,0	46,5	59,8	13,7	27,2	40,8	54,1	7. 30. 13,58				13,40	71,35		7. 31. 24,83	B.		
	79 Geminorum	24,0	38,3	52,7	7,2	21,7	36,0	50,1	7. 35. 7,15				6,85			7. 36. 18,29	B.		
	H. C. 15112 . . . . .	....	49,6	4,0	19,0	33,8	48,1	....	7. 37. 18,90				18,57			7. 38. 30,01	B.
	Argelander 8357	47,5	10,1	32,1	55,0	17,3	39,7	2,2	7. 40. 54,84				54,11			7. 42. 5,55	B.		
	5 Cancri	1,3	15,2	29,1	43,4	58,0	11,8	25,9	7. 51. 43,53				43,26			7. 52. 54,70	B.		
	B.A.C. 2683	8,3	22,8	37,0	51,2	5,8	20,0	34,1	7. 54. 51,31				51,02			7. 56. 2,46	B.		
	B.A.C. 2759	39,9	53,9	7,9	22,2	36,7	50,5	4,9	8. 4. 22,28				22,00			8. 5. 33,45	B.		
	Rumker 2467 . . . . .	....	33,2	47,2	1,9	16,1	30,1	....	8. 9. 1,70				1,41			8. 10. 12,86	B.
	υ ¹ Cancri	46,0	0,9	15,7	30,8	45,6	0,1	15,1	8. 16. 30,60				30,26			8. 17. 41,71	B.		
	H. C. 16810	56,9	11,0	24,9	39,2	53,2	7,3	21,5	8. 24. 39,05				38,78			8. 25. 50,24	B.		
	Argelander 9165	1,0	23,1	44,5	7,1	28,9	50,9	12,7	8. 28. 6,89				6,17			8. 29. 17,63	B.		
	ε Hydræ	56,0	9,4	22,9	36,7	50,2	3,9	17,0	8. 37. 36,59				36,40	71,44		8. 38. 47,86	B.		
	α Hydræ	19,3	32,9	46,2	0,0	13,9	27,2	40,8	9. 19. 0,04				59,97	71,52		9. 20. 11,44	B.		
	Iris	5,1	18,6	32,1	45,8	59,2	12,7	26,1	9. 37. 45,66				45,48			9. 38. 56,96	B.		
	Regulus	28,1	42,1	55,8	9,6	23,6	37,2	50,9	9. 59. 9,62				9,38	71,52		10. 0. 20,87	B.		
Mar. 8	(a) Rumker 2152	24,2	39,0	53,7	8,4	23,1	38,1	52,6	7. 5. 8,45	-5,0			8,19		0,10	7. 6. 21,03	B.		
	(b) λ Geminorum	31,1	45,0	58,7	13,1	27,1	40,9	55,1	7. 8. 13,00				12,79			7. 9. 25,63	B.		
	(c) Castor	58,4	14,2	29,9	46,1	2,1	17,9	33,3	7. 23. 45,99				45,65	72,86		7. 24. 58,49	B.		
	(c) Procyon . . . . .	....	45,1	58,5	12,2	25,7	39,1	....	7. 30. 12,12				11,99	72,72		7. 31. 24,83	B.
	Arcturus	51,9	6,3	20,2	35,1	49,2	3,7	17,4	14. 7. 34,83				34,60	72,98		14. 8. 47,47	B.		
Mar. 10	(d) Polaris . . . . .	....	....	45,7	31,5	9,3	....	....	1. 4. 29,00				12,94		0,04		B.
	16 Geminorum	4,5	18,8	33,0	47,5	1,9	16,1	30,7	6. 18. 47,50				47,26			6. 18. 58,57	B.		
	Bessel ix. 235	42,8	....	10,0	23,8	37,3	....	5,6	9. 11. 23,90				23,71			9. 11. 35,03	B.
	Bessel ix. 269 . . . . .	....	....	....	53,9	7,8	21,6	35,1	9. 12. 53,79				53,68			9. 13. 4,92	B.
	α Hydræ	19,6	33,0	46,5	0,2	13,9	27,2	40,9	9. 20. 0,18				0,15	11,31			B.		
	Regulus	28,3	42,2	55,9	9,9	23,8	37,1	50,9	10. 0. 9,73				9,56	11,33			B.		
Mar. 17	(e) Polaris	33,5	11,3	40,5	25,5	5,4	37,5	14,7	1. 4. 24,06	-5,9	+2,4		7,72		0,45	1. 4. 21,87	B.		
	11 Canis Majoris	2,8	16,3	....	44,2	58,1	11,8	26,0	6. 39. 44,19				44,15			6. 39. 58,40	B.	
	Argelander 7375	19,8	42,2	3,9	26,3	48,6	10,4	32,7	6. 45. 26,27				25,57			6. 45. 39,83	B.		
	* N.P.D. 65°. 52'	6,8	21,2	35,7	50,9	5,8	20,3	35,0	6. 57. 50,81				50,47			6. 58. 4,73	B.		
	Castor	56,9	12,4	28,2	44,8	0,7	16,3	32,0	7. 24. 44,47				44,06	14,28		7. 24. 58,33	B.		
	Procyon	30,1	43,4	56,8	10,4	24,2	37,7	51,0	7. 31. 10,51				10,32	14,24		7. 31. 24,59	B.		
	H. C. 15112	31,9	46,5	0,9	16,0	30,7	45,2	59,9	7. 38. 15,87				15,54			7. 38. 29,81	B.		
	Argelander 8357	44,6	7,0	29,0	52,0	14,3	36,8	58,9	7. 41. 51,80				51,08			7. 42. 5,36	B.		
	B.A.C. 2759	36,8	50,8	4,8	19,3	33,7	47,6	1,8	8. 5. 19,26				18,97			8. 5. 33,25	B.		
	(f) υ ¹ Cancri . . . . .	....	57,9	12,3	27,4	42,4	57,1	....	8. 17. 27,42				27,08			8. 17. 41,37	B.
	β Leonis	26,9	40,8	54,4	8,8	22,8	36,4	50,4	11. 41. 8,65				8,39	14,31		11. 41. 22,74	B.		
	Polaris	1,0	36,6	....	50,5	34,0	1,3	42,0	13. 3. 51,03				8,15			13. 4. 22,53	B.	
	Spica	20,9	34,6	48,1	2,0	15,7	29,1	42,8	13. 17. 1,88				1,81	14,46		13. 17. 16,19	B.		
Mar. 18	(g) Polaris . . . . .	....	....	....	....	8,0	34,5	....	1. 4. 25,59				8,29			1. 4. 22,89	B.
Mar. 21	(h)(i)* N.P.D. 65°. 54' . . . . .	....	13,2	27,7	42,6	57,6	12,1	....	7. 19. 42,64				42,30		0,32	7. 19. 58,41	B.
	(h) Castor	54,8	10,9	26,5	42,7	58,7	14,2	30,1	7. 24. 42,56				42,15	16,12		7. 24. 58,26	B.		
	(k) Bessel vii. 835 . . . . .	....	....	....	36,4	50,3	4,3	18,1	7. 26. 36,48				36,39			7. 26. 52,50	B.
	79 Geminorum	19,0	33,2	47,6	2,1	16,7	30,9	45,2	7. 36. 2,10				1,79			7. 36. 17,90	B.		
	H. C. 15112 . . . . .	....	44,3	59,1	14,1	28,7	43,0	....	7. 38. 13,84				13,51			7. 38. 29,62	B.
	Argelander 8357	42,7	5,0	27,2	49,9	12,2	34,8	57,1	7. 41. 49,85				49,14			7. 42. 5,25	B.		
	B.A.C. 2683	3,7	18,0	31,9	46,6	0,9	14,8	29,0	7. 55. 46,42				46,13			7. 56. 2,24	B.		
	B.A.C. 2759	34,9	48,9	3,0	17,3	31,6	45,5	59,8	8. 5. 17,29				17,00			8. 5. 33,12	B.		

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40°,362, - 26°,877, - 13°,616, + 0°,065, + 13°,537, + 26°,890, + 40°,362.

March 8, 23^h, Hardy was put forward 1^m.

(a) Very diffused: after snow. On March 8 the Temperature was about 33°, having fallen 10° since March 5. (b) A mere patch of light. (c) Very bad definition. (d) The clock's rate at this time was irregular: the gain between March 8 and March 10 may be owing to putting the clock forward. The Temperature March 10 was about 33°. (e) At 8^h of March 17 the Temperature was 47°. (f) A smaller north-following. (g) So unsteady as to be scarcely visible. (h) The sky nearly overcast with thick fog. (i) Of Mag. 8,9. There is no object in the place of H. C. 14509. (k) Very unsteady and flaring.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
Mar. 21	Rumker 2467.	14,3	28,3	42,7	56,9	11,3	25,2	39,2	8. 9. 56,84	-0,4	-5,9	+2,4	56,55		0,32	8. 10. 12,67		B.	
	H. C. 16810.	51,8	6,1	20,0	34,1	48,4	2,3	16,3	8. 25. 34,14				33,86			8. 25. 49,98		B.	
	Argelander 9165. .	55,9	18,0	39,5	2,0	24,2	46,0	8,1	8. 29. 1,95				1,25			8. 29. 17,37		B.	
	ϵ Hydræ.	51,2	4,8	17,9	31,8	45,2	58,8	12,2	8. 38. 31,70				31,50	16,16		8. 38. 47,63		B.	
	H. C. 17647.	39,1	52,8	6,4	20,3	34,4	48,1	2,1	8. 48. 20,45				20,41			8. 48. 36,54		B.	
	α Hydræ.	14,6	28,1	41,5	55,2	9,1	22,2	36,1	9. 19. 55,26				55,18	16,18		9. 20. 11,31		B.	
	(a) Iris.	39,3	54,0	....	20,4	34,0	47,2	....	9. 29. 20,34				20,16			9. 29. 36,30		B.
	Regulus.	23,7	37,3	51,0	5,1	19,0	32,5	46,0	10. 0. 4,94				4,70	16,14		10. 0. 20,84		B.	
	β Leonis.	25,2	38,9	52,7	6,9	21,0	34,8	48,7	11. 41. 6,89				6,63	16,09		11. 41. 22,80		B.	
Mar. 24	(b)* N.P.D. 65°. 54'. .	....	13,1	27,9	42,7	57,5	12,2	26,9	7. 19. 42,68		-6,2	+3,0	42,34		-0,01	7. 19. 58,62		T.
	Castor.	54,7	10,4	26,3	42,5	58,3	14,2	30,1	7. 24. 42,36				41,94	16,27		7. 24. 58,22		T.	
	(c) Procyon.	27,6	41,4	54,6	8,4	22,2	35,4	49,1	7. 31. 8,39				8,22	16,23		7. 31. 24,50		T.	
	(d) Pollux.	3,2	18,2	33,4	49,0	4,3	19,3	35,0	7. 35. 48,92				48,55	16,39		7. 36. 4,83		T.	
	84 Geminorum. .	3,6	18,1	32,6	47,3	2,0	16,4	31,2	7. 43. 47,32				47,00			7. 44. 3,28		T.	
	B.A.C. 2759.	34,4	48,9	2,8	17,2	31,5	45,3	59,3	8. 5. 17,06				16,78			8. 5. 33,06		T.	
	Rumker 2467.	14,2	28,3	42,0	56,3	11,2	25,2	39,3	8. 9. 56,64				56,36			8. 10. 12,64		T.	
	(e) ϕ^3 Cancr. sp. ....	....	53,3	8,6	24,0	39,2	54,1	9,3	8. 17. 23,88				23,51			8. 17. 39,79		T.
	ϵ Hydræ.	50,9	4,4	18,1	31,6	45,4	58,8	12,4	8. 38. 31,65				31,46	16,16		8. 38. 47,74		T.	
	(f) H. C. 17647. ....	....	....	6,4	20,4	34,4	48,1	1,9	8. 48. 20,41				20,40			8. 48. 36,68		T.
	(g) α Hydræ.	14,3	28,1	41,4	55,2	8,5	22,3	35,5	9. 19. 55,04				54,98	16,35		9. 20. 11,26		T.	
	(h) Iris. ....	....	54,1	8,2	....	35,3	49,0	....	9. 28. 21,67				21,49			9. 28. 37,77		T.
	(i) Regulus.	23,3	37,2	51,0	5,1	18,3	32,3	46,2	10. 0. 4,77				4,54	16,27		10. 0. 20,82		T.	
Mar. 28	58 Geminorum ...	25,1	39,8	54,1	9,2	23,7	38,4	53,0	7. 14. 9,05				8,73		-0,18	7. 14. 24,02		T.	
	* N.P.D. 65°. 54'. .	....	14,0	28,4	43,3	58,2	12,9	27,4	7. 19. 43,33				43,00			7. 19. 58,29		T.
	H. C. 14722.	8,8	23,5	37,8	52,8	7,5	22,0	36,6	7. 25. 52,71				52,39			7. 26. 7,68		T.	
	Procyon.	28,7	42,1	55,5	9,4	23,2	36,4	50,0	7. 31. 9,33				9,16	15,22		7. 31. 24,50		T.	
	Pollux.	4,0	19,3	34,4	50,0	5,3	20,6	35,6	7. 35. 49,88				49,51	15,35		7. 36. 4,60		T.	
	84 Geminorum. ....	....	19,2	33,6	48,2	3,1	17,4	32,1	7. 43. 48,31				47,99			7. 44. 3,28		T.
	(k) B.A.C. 2759.	35,7	49,8	3,6	17,9	32,4	46,3	0,4	8. 5. 18,02				17,74			8. 5. 33,03		T.	
	(l) ν^1 Cancr. ....	....	....	11,2	26,3	41,3	56,0	11,1	8. 17. 26,34				26,00			8. 17. 41,29		T.
Mar. 29	α Hydræ.	15,6	29,2	42,3	56,4	10,0	23,3	37,1	9. 19. 56,27				56,21	15,06	-0,11	9. 20. 11,33		T.	
	δ Leonis. ....	....	22,0	36,1	51,0	5,3	19,5	34,2	11. 5. 50,79				50,48	15,20		11. 6. 5,59		T.
	(m) β Corvi.	31,1	45,4	0,1	14,8	29,6	43,8	58,4	12. 26. 14,74				14,81	15,07		12. 26. 29,91		T.	
Mar. 30	Polaris. ....	....	11,0	41,0	24,8	....	....	....	1. 4. 22,37		-6,3		3,34					T.
Mar. 31	Bessel ix. 269. ...	8,2	....	35,6	49,8	3,7	17,4	31,2	9. 12. 49,71				49,46		0,10	9. 13. 4,55		T.
	Regulus.	24,4	38,2	51,9	6,0	19,9	33,6	47,3	10. 0. 5,90				5,66	15,09				T.	
Apr. 3	Procyon.	28,1	41,4	54,7	8,4	22,2	35,6	49,2	7. 31. 8,52				8,34	15,93	0,14	7. 31. 24,30		T.	
	Pollux. ....	....	18,3	33,5	49,2	4,5	19,6	34,9	7. 35. 49,02				48,64	16,10		7. 36. 4,60		T.
	(l)(n) ν^1 Cancr. ....	....	....	....	....	41,0	55,2	10,1	8. 17. 25,71				25,36			8. 17. 41,33		T.
	(o) γ Leonis. ....	....	....	....	24,1	38,6	52,8	7,2	10. 11. 24,08				23,77			10. 11. 39,75		T.
	β Corvi. ....	....	....	....	....	28,4	43,1	57,4	12. 26. 13,81				13,87	16,02		12. 26. 29,86		T.
	(p) Polaris SP.	54,5	29,5	3,0	40,5	26,3	54,8	....	13. 3. 43,02				1,90					T.
	Spica.	19,4	33,2	46,5	0,6	14,4	27,9	41,4	13. 17. 0,48				0,44	16,01		13. 17. 16,44		T.	
	(q) Arcturus.	49,2	....	18,0	32,5	46,9	....	....	14. 8. 32,49				32,19	15,83		14. 8. 48,19		T.
Apr. 5	(q) ϵ Hydræ.	50,9	4,6	18,0	31,6	45,3	58,7	12,3	8. 38. 31,63				31,44	16,01	0,17	8. 38. 47,47		T.	
	(r) Iris.	22,3	35,8	49,1	2,8	16,5	29,9	....	9. 27. 2,85				2,66			9. 27. 18,70		T.
	Regulus.	23,5	37,3	50,9	5,0	18,7	32,6	46,2	10. 0. 4,89				4,65	16,04		10. 0. 20,69		T.	
	β Leonis.	25,1	39,0	52,9	7,0	21,2	34,7	48,9	11. 41. 6,97				6,71	15,99		11. 41. 22,76		T.	
	H. C. 22655. ....	....	....	18,9	34,9	50,6	6,1	21,6	11. 55. 34,81				34,40			11. 55. 50,45		T.
	Arcturus.	49,3	3,5	17,7	32,3	46,5	0,8	15,1	14. 8. 32,17				31,87	16,17		14. 8. 47,94		T.	
Apr. 7	(s) ϕ^1 Cancr. sp.	37,2	52,4	7,4	23,0	38,1	53,1	8,3	8. 17. 22,78		-6,5		22,39		0,37	8. 17. 39,25		T.	

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,362, -26°,877, -13°,616, +0°,065, +13°,537, +26°,890, +40°,362.

(a) Faint: the sky not clear. (b) On March 24, the temperature fell to 30°. (c) No definition. (d) The last four wires have been corrected by -2°. (e) 'South-preceding.' The other component is brighter. (f) Corrected by +10°. (g) Diffused and extremely unsteady. (h) Seen at intervals with much difficulty on account of clouds. (i) Very cloudy. Snow falling at times this evening and the stars ill-defined. (k) Disturbance by noise. The noted times have been diminished 1°. (l) 'South-preceding of two.' (m) No definition and great motion. (n) 'Not good: observed hurriedly.' (o) 'Preceding of two.' (p) 'Good.' (q) Cloudy. (r) Extremely faint, scarcely bearing illumination. The observation was, however, satisfactory. (s) 'The south-preceding.' Temperature on this evening at 46°.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
Apr. 7	(a) Argelander 9165..	54,4	15,9	38,4	1,0	23,1	44,9	6,7	8. 29. 0,62	-0,4	-6,5	+3,0	59,86		0,37	8. 29. 16,72		T.	
	ε Hydræ.....	50,2	3,7	17,2	31,0	44,5	58,0	11,5	8. 38. 30,87				30,67	16,74		8. 38. 47,53		T.	
	Bessel VII. 1276..	6,8	20,4	34,2	48,1	2,1	15,8	29,6	8. 48. 48,15				48,13			8. 49. 5,00		T.	
	Bessel IX. 235. ...	36,5	50,4	4,2	18,3	32,1	45,9	59,8	9. 11. 18,17				17,91			9. 11. 34,78		T.	
	(b) Bessel IX. 269. ...	....	....	33,4	47,9	2,0	15,5	29,6	9. 12. 47,83				47,57			9. 13. 4,44		T.
	α Hydræ.....	13,4	27,2	40,4	54,3	8,1	21,4	35,1	9. 19. 54,27				54,20	16,95		9. 20. 11,07		T.	
	(c) Iris.....	....	....	....	12,1	25,9	39,1	52,6	9. 27. 12,05				11,85			9. 27. 28,72		T.
	Regulus.....	22,5	36,4	50,2	4,2	18,0	31,6	45,6	10. 0. 4,07				3,82	16,85		10. 0. 20,71		T.	
	δ Leonis.....	5,8	20,0	34,4	49,1	3,4	17,8	32,4	11. 5. 48,99				48,66	16,97		11. 6. 5,56		T.	
	(d) ξ Ursæ Majoris...	....	....	35,6	51,8	8,0	23,7	39,4	11. 9. 51,78				51,33			11. 10. 8,23		T.
	ι Leonis.....	6,5	20,4	34,0	47,9	1,5	15,2	29,1	11. 15. 47,80				47,56			11. 16. 4,46		T.	
	83 Leonis. np.	10,8	24,4	38,0	51,5	5,1	18,2	32,0	11. 18. 51,43				51,25			11. 19. 8,15		T.	
	γ Virginis.....	5,0	18,3	32,1	45,4	59,2	12,5	25,8	12. 33. 45,47				45,34			12. 34. 2,26		T.	
Arcturus.....	48,8	2,6	17,2	31,5	45,9	0,0	14,3	14. 8. 31,47				31,15	16,92		14. 8. 48,10		T.		
Apr. 11	(e) ε Hydræ.....	49,4	3,0	16,2	30,0	43,3	56,9	10,3	8. 38. 29,87				29,67	17,68	0,09	8. 38. 47,43		T.	
	II. C. 17647.....	37,2	51,0	4,8	18,8	32,6	46,3	0,2	8. 48. 18,70				18,68			8. 48. 36,44		T.	
	Bessel IX. 235. ....	....	....	....	17,2	31,4	44,9	58,7	9. 11. 17,25				16,99			9. 11. 34,75		T.
	α Hydræ.....	12,4	26,2	39,4	53,2	6,9	20,2	34,1	9. 19. 53,20				53,13	17,96		9. 20. 10,89		T.	
	(f) Iris.....	9,1	22,5	35,9	49,3	3,2	....	30,2	9. 27. 49,55				49,35			9. 28. 7,11		T.
	(g) Regulus.....	21,7	35,6	49,1	3,2	17,0	30,8	44,6	10. 0. 3,14				2,89	17,73		10. 0. 20,66		T.	
	β Corvi.....	28,5	43,0	57,3	12,2	26,9	41,2	56,0	12. 26. 12,15				12,21	17,70		12. 26. 29,99		T.	
	(h) Spica.....	17,6	31,4	45,0	58,8	12,5	26,2	39,8	13. 16. 58,76				58,71	17,80		13. 17. 16,49		T.	
Apr. 14	δ Leonis.....	4,9	19,3	33,7	48,3	2,9	17,1	31,6	11. 5. 48,26		-6,3	+3,0	47,94	17,63	-0,01			T.	
	(i) β Leonis.....	23,3	37,3	51,2	5,3	19,1	35,3	47,3	11. 41. 5,26				5,00	17,66				T.	
Apr. 17	(k) ε Hydræ.....	49,3	2,9	16,1	30,1	43,5	57,0	10,3	8. 38. 29,88			+1,7	29,63	17,62	-0,22	8. 38. 47,34		T.	
	Bessel IX. 269. ...	....	....	....	47,0	1,0	14,7	28,2	9. 12. 46,91				46,61			9. 13. 4,32		T.
	α Hydræ.....	12,4	26,2	39,9	53,3	7,2	20,4	34,0	9. 19. 53,34				53,20	17,80		9. 20. 10,91		T.	
	(l) Iris.....	....	....	18,0	32,0	....	58,3	12,0	9. 29. 31,53				31,28			9. 29. 48,98		T.
	Bessel IX. 1176...	45,3	59,3	13,1	27,2	41,3	55,2	9,1	9. 54. 27,22				26,92			9. 54. 44,62		T.	
	Regulus.....	22,0	35,5	49,2	3,2	17,1	30,6	44,5	10. 0. 3,16				2,86	17,68		10. 0. 20,56		T.	
	Rumker 3103.....	41,0	....	....	22,0	35,5	....	2,1	10. 6. 21,72				21,46			10. 6. 39,16		T.
	Bessel x. 155.....	....	42,1	55,3	9,1	22,4	36,0	49,3	10. 9. 8,93				8,68			10. 9. 26,38		T.
	Rumker 3152.....	30,4	44,0	57,6	11,6	25,2	39,0	52,8	10. 13. 11,51				11,22			10. 13. 28,92		T.	
	Bessel x. 285.....	58,0	11,7	25,1	38,9	53,2	7,1	20,9	10. 16. 39,28				38,98			10. 16. 56,68		T.	
	45 Leonis.....	....	56,2	10,2	24,1	38,0	51,5	....	10. 19. 24,00				23,72			10. 19. 41,42		T.
	Bessel x. 411.....	12,5	26,0	39,3	53,0	7,0	20,2	33,8	10. 22. 53,11				52,86			10. 23. 10,56		T.	
	Bessel x. 448.....	50,0	3,8	17,2	31,0	44,9	58,2	11,9	10. 25. 31,00				30,73			10. 25. 48,43		T.	
	(m) H. C. 20522.....	....	16,8	30,3	44,2	58,1	12,1	....	10. 28. 44,30				44,00			10. 29. 1,69		T.
	H. C. 20614.....	....	47,1	0,8	14,3	28,2	41,4	55,0	10. 32. 14,38				14,14			10. 32. 31,83		T.
	Rumker 3312.....	31,3	45,0	58,5	12,3	26,2	40,0	53,7	10. 36. 12,43				12,14			10. 36. 29,83		T.	
	38 Sextantis.....	....	44,6	58,2	11,8	25,4	39,0	....	10. 39. 11,80				11,54			10. 39. 29,23		T.
Apr. 19	(n) Spica.....	19,0	....	....	....	27,2	41,0	13. 16. 59,95			-6,5		59,82	16,72	-0,36	13. 17. 16,69		T.
	Arcturus.....	48,8	3,0	17,2	31,8	46,1	0,2	14,3	14. 8. 31,63				31,27	16,90		14. 8. 48,12		T.	
	ε Bootis.....	23,2	38,2	53,3	8,4	24,2	39,0	54,4	14. 38. 8,67				8,24	16,97		14. 38. 25,09		T.	
	(o) α ² Libræ.....	35,6	49,4	3,0	17,2	31,2	45,1	59,2	14. 42. 17,24				17,15	16,84		14. 42. 34,00		T.	
Apr. 20	(p) ε Hydræ.....	50,1	4,0	17,2	30,9	44,7	58,0	11,5	8. 38. 30,91				30,65	16,56	-0,35	8. 38. 47,24		T.	
	α Hydræ.....	....	....	....	54,5	8,0	21,3	35,2	9. 19. 54,33				54,19	16,77		9. 20. 10,78		T.
	Regulus.....	23,0	36,9	50,3	4,3	18,3	31,8	45,6	10. 0. 4,31				4,00	16,50		10. 0. 20,57		T.	
	* N.P.D. 73°. 51'.	53,1	7,0	21,0	35,2	49,3	3,1	17,2	10. 7. 35,13				34,80			10. 7. 51,37		T.	
	(q) γ Leonis.....	40,3	54,6	8,8	23,2	38,0	52,0	6,3	10. 11. 23,31				22,94			10. 11. 39,51		T.	
	(r) Spica.....	19,3	32,9	46,3	0,3	13,9	27,5	41,2	13. 17. 0,20				0,07	16,48		13. 17. 16,60		T.	
	84 Virginis.....	33,6	47,0	0,5	14,2	27,9	41,1	54,6	13. 35. 14,13				13,89			13. 35. 30,42		T.	
	(s) H. C. 25637.....	47,3	2,0	16,3	31,2	46,1	0,7	15,3	13. 48. 31,27				30,88			13. 48. 47,40		T.	
	(r) Arcturus.....	49,2	3,4	17,4	32,2	46,4	0,5	15,1	14. 8. 32,03				31,67	16,51		14. 8. 48,19		T.	

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40°, 362, - 26°, 877, - 13°, 616, + 0°, 065, + 13°, 537, + 26°, 890, + 40°, 362.

(a) Position of the observer very uncomfortable. (b) Wire III taken hurriedly. (c) Faint, but observed satisfactorily. The wires were lost by wrong setting. (d) 'North-preceding of two.' (e) Temperature this evening at 36°. (f) 'Barely perceptible.' (g) Clouded. (h) Flaring. (i) Diffused and unsteady. (k) No definition. (l) 'Only seen occasionally. The planet too faint to observe with any certainty.' (m) Corrected by -1', the counting being found to be 1' in advance. Heasel x. 522 has the same N.P.D. as this star, but greater R.A. by about 15°. (n) Interrupted by clouds. (o) The shutter in the way. (p) Temperature on this night, 32°. (q) 'The preceding of two.' (r) Flaring and unsteady. (s) 'Good observation.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
Apr. 20	(a) Bessel xiv. 283 ...	43,7	57,3	11,0	24,9	38,8	52,4	6,1	14. 15. 24,89	-0,4	-6,5	+1,7	24,78		-0,35	14. 15. 41,30		T.	
	B.A.C. 4787	38,8	52,7	6,1	20,2	34,0	47,9	1,5	14. 19. 20,17				20,06			14. 19. 36,58		T.	
	Bessel xiv. 424 ...	14,6	28,3	42,0	55,9	9,7	23,4	36,8	14. 22. 55,81				55,69			14. 23. 12,20		T.	
	(b) Bessel xiv. 498 ...	19,2	33,0	46,5	...	14,0	27,8	41,8	14. 27. 0,39				0,27			14. 27. 16,78		T.	
	ε Bootis	23,4	38,9	53,9	9,2	24,4	39,4	54,8	14. 38. 9,15				8,72	16,50		14. 38. 25,23		T.	
	(c) δ Ophiuchi	31,2	44,5	58,0	11,6	25,2	38,4	52,1	16. 6. 11,57				11,39	16,47		16. 6. 27,88		T.	
Apr. 21	Regulus .....	...	36,9	50,3	4,2	18,1	32,0	45,5	10. 0. 4,27		+2,0		4,41	16,08	-0,31	10. 0. 20,62		T.
	Spica	19,2	32,8	46,2	0,1	14,1	27,5	41,2	13. 17. 0,15				0,29	16,26		13. 17. 16,46		T.	
	(d) * N.P.D. 65°. 53'.	20,9	35,4	50,0	5,0	19,7	34,3	49,2	13. 59. 4,93				5,08			13. 59. 21,24		T.	
	Arcturus	49,1	3,4	17,2	32,0	46,3	0,4	14,7	14. 8. 31,87				32,02	16,17		14. 8. 48,18		T.	
	ε Bootis	23,4	38,6	53,6	9,0	24,3	39,2	54,4	14. 38. 8,93				9,08	16,15		14. 38. 25,23		T.	
Apr. 23	Regulus	23,2	37,0	50,5	4,6	18,6	32,1	46,0	10. 0. 4,57				4,71	15,75	-0,08			T.	
	* N.P.D. 73°. 51'.	53,3	7,2	21,0	35,3	49,6	3,2	17,2	10. 7. 35,26				35,40			10. 7. 51,15		T.	
	(e) γ Leonis	40,3	54,6	8,9	23,6	38,0	52,1	6,7	10. 11. 23,46				23,61			10. 11. 39,36		T.	
Apr. 24	(f) α Hydræ	14,0	27,6	41,1	54,9	8,5	21,9	35,3	9. 19. 54,79				54,93	15,96	0,16			T.	
	(g) Regulus	23,0	36,8	50,3	4,4	18,2	32,0	45,8	10. 0. 4,36				4,50	15,95				T.	
Apr. 26	α Hydræ	13,9	27,5	41,0	54,8	8,4	21,8	35,6	9. 19. 54,71				54,85	16,01	0,15	9. 20. 10,92		T.	
	Regulus	22,9	36,8	50,3	4,4	18,2	31,8	45,6	10. 0. 4,29				4,43	15,99		10. 0. 20,50		T.	
	* N.P.D. 73°. 51'.	53,0	7,1	20,9	35,0	49,2	3,1	17,0	10. 7. 35,04				35,18			10. 7. 51,25		T.	
	(e) γ Leonis	40,0	54,3	8,5	23,2	37,8	51,9	6,2	10. 11. 23,13				23,28			10. 11. 39,35		T.	
	δ Leonis	6,0	20,3	34,6	49,2	3,9	18,0	32,6	11. 5. 49,23				49,38	16,07		11. 6. 5,46		T.	
	55 Ursæ Majoris ..	46,1	3,3	20,6	38,2	55,7	12,9	30,0	11. 10. 38,12				38,28			11. 10. 54,36		T.	
	(h) Polaris S.P. ....	...	...	24,0	59,5	45,5	11,5	51,0	13. 4. 2,82				3,16			13. 4. 19,25		T.
	(i) Spica	19,2	33,0	46,5	0,3	14,0	27,7	41,3	13. 17. 0,28				0,42	16,14		13. 17. 16,51		T.	
	(k) Rumker 4364	57,9	12,2	26,4	41,1	55,9	10,1	24,6	13. 27. 41,17				41,32			13. 27. 57,41		T.	
	H. C. 25637	47,0	1,8	16,2	31,0	46,0	0,3	15,0	13. 48. 31,04				31,19			13. 48. 47,29		T.	
	* N.P.D. 65°. 53'.	20,9	35,3	50,2	5,1	19,9	34,5	49,0	13. 59. 4,99				5,14			13. 59. 21,24		T.	
	Arcturus	49,0	3,3	17,3	32,1	46,3	0,6	14,8	14. 8. 31,91				32,06	16,16		14. 8. 48,16		T.	
	(l) Bessel xiv. 280 ...	37,8	...	...	19,0	32,9	46,6	0,3	14. 15. 19,03				19,17			14. 15. 35,27		T.
	(m) Bessel xiv. 283 ...	43,7	57,8	11,3	25,2	38,9	52,4	6,4	14. 15. 25,10				25,24			14. 15. 41,34		T.	
	B.A.C. 4787	39,0	53,0	...	20,4	34,6	48,0	1,9	14. 19. 20,49				20,63			14. 19. 36,73		T.	
	Bessel xiv. 596 ...	40,5	54,4	8,1	22,2	36,3	50,0	4,0	14. 32. 22,21				22,34			14. 32. 38,44		T.	
	ε Bootis	23,3	38,5	53,7	9,1	24,2	39,2	54,3	14. 38. 8,90				9,05	16,22		14. 38. 25,15		T.	
	α² Libræ	36,0	49,8	3,8	18,0	31,8	45,9	0,0	14. 42. 17,90				18,03	16,04		14. 42. 34,13		T.	
	Polaris	14,5	53,0	22,5	7,5	43,5	14,0	48,3	1. 4. 3,33				3,37			1. 4. 19,44		T.	
Apr. 28	Regulus	22,3	36,1	49,8	3,9	17,5	31,0	45,0	10. 0. 3,66		+2,6		3,83	16,56	0,41			T.	
	δ Leonis .....	...	...	...	49,0	3,1	17,6	32,0	11. 5. 48,72				48,91	16,52				T.
Apr. 29	(n) Polaris	16,0	53,0	...	9,5	...	...	48,0	1. 4. 3,30			+0,5	6,39		0,45	1. 4. 23,90		T.
Apr. 30	Regulus	21,2	35,0	48,7	2,7	16,4	30,2	44,1	10. 0. 2,61				2,73	17,63				T.	
	δ Leonis	4,2	18,7	33,0	47,7	2,0	16,3	30,8	11. 5. 47,53				47,67	17,74				T.	
May 2	δ Leonis	3,6	18,1	32,0	46,9	1,5	15,8	30,1	11. 5. 46,86		+0,1		47,03	18,36	0,46			T.	
	(n)(o) Polaris .....	...	...	18,0	59,5	44,0	11,5	...	1. 4. 1,00				5,37		0,50	1. 4. 24,05		T.
May 3	(p) α Hydræ .....	...	...	...	...	5,5	18,9	32,5	9. 19. 51,77				51,89	18,87		9. 20. 10,74		T.
	Regulus	20,1	33,9	47,6	1,7	15,5	29,1	42,7	10. 0. 1,51				1,66	18,66		10. 0. 20,53		T.	
	δ Leonis	3,0	17,4	31,7	46,5	1,0	15,2	29,5	11. 5. 46,33				46,51	18,87		11. 6. 5,40		T.	
	(q) 55 Ursæ Majoris ..	43,3	0,4	17,7	35,1	52,6	9,9	27,0	11. 10. 35,14				35,36			11. 10. 54,25		T.	
	o Virginis	32,4	46,1	59,6	13,5	27,3	40,7	54,3	11. 57. 13,41				13,56			11. 57. 32,47		T.	
	(r) β Corvi	27,1	41,7	56,3	10,9	25,5	40,1	54,5	12. 26. 10,87				10,96	18,89		12. 26. 29,88		T.	
	ε Bootis	20,5	35,6	50,5	6,2	21,3	36,3	51,4	14. 38. 5,97				6,16	19,16		14. 38. 25,12		T.	
	α² Libræ	33,0	47,1	0,9	15,1	29,0	42,9	56,9	14. 42. 14,99				15,10	19,03		14. 42. 34,06		T.	

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',362, -26',877, -13',616, +0',065, +13',537, +26',890, +40',362.

(a) The south of two having nearly the same R.A. (b) Extremely faint. (c) The motion seemed irregular. (d) 'Good.' (e) 'The preceding of two.' (f) Faint and moving irregularly. (g) Clouded. Temperature on this night, 44°. (h) Excessively tremulous. (i) Indefinite. (k) 'Satisfactory.' (l) The last four wires have been increased 10". (m) All except wire I have been increased 10". (n) Clouds and unsteadiness. (o) Wires IV and VI quite uncertain. (p) The observer late. (q) Corrected by -1', the counting being 1' in advance. (r) Wire II was written down 47,7.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
May 3	(a) Polaris .....	....	53,0	20,5	5,0	43,0	8,0	46,5	1. 4. 1,50	+0,1	+2,6	+0,5	5,87		0,48	1. 4. 25,04			T.
May 4	(b) Sirius	28,1	42,2	56,1	10,3	24,3	38,2	52,3	6. 38. 10,21				10,30	19,15		6. 38. 29,58			T.
	δ Leonis	2,5	17,0	31,3	46,0	0,5	14,8	29,2	11. 5. 45,90				46,03	19,33		11. 6. 5,40			T.
	β Leonis .....	....	....	....	3,1	17,1	31,0	44,9	11. 41. 3,07				3,19	19,32		11. 41. 22,57			T.
	ο Virginis .....	....	....	59,1	13,0	26,8	40,3	54,0	11. 57. 13,00				13,11			11. 57. 32,50			T.
	Polaris SP.	24,0	56,5	29,5	3,8	48,0	17,0	51,5	13. 4. 7,19				4,71			13. 4. 24,12			T.
	Spica	16,0	29,6	43,2	57,0	10,9	24,4	38,0	13. 16. 57,02				57,11	19,45		13. 17. 16,52			T.
	Rumker 4364 ...	....	....	23,2	37,5	52,3	6,9	21,4	13. 27. 37,80				37,93			13. 27. 57,35			T.
	H. C. 25637	44,0	58,5	13,0	28,0	42,6	57,2	11,7	13. 48. 27,86				27,99			13. 48. 47,42			T.
	* N.P.D. 65°. 53'. ..	17,3	32,1	46,8	2,0	16,5	31,2	45,8	13. 59. 1,67				1,80			13. 59. 21,23			T.
	Arcturus	45,8	0,1	14,2	28,7	43,0	57,2	11,4	14. 8. 28,63				28,75	19,50		14. 8. 48,18			T.
	Bessel xiv. 280 ...	34,3	48,0	1,6	15,4	29,4	43,2	57,0	14. 15. 15,56				15,65			14. 15. 35,08			T.
	Bessel xiv. 424 ...	11,3	25,2	38,8	52,9	6,5	20,1	33,9	14. 22. 52,67				52,76			14. 23. 12,20			T.
	Bessel xiv. 512 ...	6,3	20,1	33,8	47,9	1,9	15,4	29,1	14. 27. 47,79				47,88			14. 28. 7,32			T.
	ε Bootis .....	....	35,2	50,3	5,4	21,1	36,1	....	14. 38. 5,62				5,76	19,56		14. 38. 25,20			T.
	α ² Libræ	32,7	46,5	0,3	14,7	28,7	42,4	56,4	14. 42. 14,53				14,62	19,52		14. 42. 34,06			T.
	Polaris .....	....	52,0	19,5	2,5	40,5	....	48,0	1. 4. 1,00				3,72			1. 4. 23,07			T.
May 7	β Corvi	26,0	40,5	54,8	9,8	24,2	38,6	53,2	12. 26. 9,59				9,66	20,16	0,25	12. 26. 29,95			T.
	(c) Arcturus	45,1	59,2	13,2	28,0	42,2	56,4	10,8	14. 8. 27,85				27,97	20,28		14. 8. 48,27			T.
	ε Bootis	19,1	34,2	49,2	5,0	20,2	35,2	50,2	14. 38. 4,73				4,87	20,46		14. 38. 25,18			T.
	α ² Libræ	32,1	45,8	59,6	13,6	27,9	41,5	55,4	14. 42. 13,70				13,79	20,37		14. 42. 34,10			T.
	(d) Bessel xiv. 909 ...	11,5	25,3	39,0	53,1	7,0	20,3	34,3	14. 47. 52,93				53,02			14. 48. 13,33			T.
	ζ ² Libræ .....	....	23,5	37,4	51,6	5,9	19,5	....	15. 21. 51,58				51,66			15. 22. 11,98			T.
	α Coronæ Borealis.	13,8	29,0	43,6	59,3	14,2	29,5	44,3	15. 27. 59,10				59,24	20,28		15. 28. 19,56			T.
May 12	(e) 58 Virginis	33,2	46,9	0,4	14,3	28,1	41,5	55,2	13. 9. 14,23		+2,0		14,33		0,20	13. 9. 34,74			T.
	Spica	15,0	28,7	42,2	56,2	9,8	23,2	37,2	13. 16. 56,04				56,14	20,41					T.
	Rumker 4364 ...	53,4	8,0	22,2	37,0	51,4	5,8	20,1	13. 27. 36,85				36,99			13. 27. 57,40			T.
May 15	α Hydræ	8,2	21,9	35,3	49,1	2,8	16,1	29,6	9. 19. 49,00				49,10	21,49	0,39	9. 20. 10,61			T.
	(f) γ Virginis	58,6	12,2	....	39,4	53,2	6,5	20,1	12. 25. 39,38				39,48			12. 26. 1,04			T.
	28 Virginis .....	....	....	35,9	49,3	3,1	16,4	30,0	12. 33. 49,40				49,50			12. 34. 11,07			T.
	(f) 58 Virginis .....	....	....	59,1	13,0	26,8	40,2	....	13. 9. 12,96				13,06			13. 9. 34,64			T.
	Rumker 4364 ...	52,2	6,9	21,0	35,9	50,3	4,4	18,9	13. 27. 35,66				35,80			13. 27. 57,38			T.
	(f) * N.P.D. 65°. 53'. ..	15,3	30,0	44,4	59,5	14,2	29,1	....	13. 58. 59,45				59,59			13. 59. 21,18			T.
	Arcturus .....	....	57,9	12,0	26,5	41,1	55,2	9,3	14. 8. 26,51				26,64	21,62		14. 8. 48,23			T.
	ε Bootis	18,1	33,1	48,1	3,6	18,7	34,0	49,1	14. 38. 3,53				3,68	21,67		14. 38. 25,28			T.
	α ² Libræ .....	....	44,5	58,3	12,5	26,6	40,4	54,4	14. 42. 12,47				12,56	21,65		14. 42. 34,16			T.
	α Serpentis	49,6	3,2	16,6	30,4	44,1	57,4	11,1	15. 36. 30,34				30,45	21,47		15. 36. 52,07			T.
May 22	(g) Flora	7,0	....	34,5	....	....	14,0	....	13. 48. 47,53		+1,9	+0,5	47,64		-1,70	13. 49. 47,04			B.
	(h) Arcturus	5,9	20,0	34,1	....	3,3	17,3	31,5	14. 7. 48,69				48,78	59,47		14. 8. 48,16			B.
	(h) ε Bootis	40,2	55,8	10,7	26,1	41,1	56,1	11,3	14. 37. 25,90				26,04	59,32		14. 38. 25,38			B.
	(h) α ² Libræ	52,9	6,8	20,8	35,0	49,1	2,8	16,8	14. 41. 34,89				34,98	59,25		14. 42. 34,32			B.
May 23	Spica	37,5	51,1	4,8	18,5	32,2	45,9	59,5	13. 16. 18,50				18,59	57,91	-1,36	13. 17. 16,48			B.
	(i) Flora	31,0	....	....	12,5	....	39,4	52,4	13. 49. 12,09				12,20			13. 50. 10,06			B.
	Arcturus	7,1	21,8	35,8	50,3	4,9	18,8	33,1	14. 7. 50,25				50,38	57,86		14. 8. 48,22			B.
	(k) α Herculis	8,2	22,2	36,1	50,1	4,2	17,9	31,9	17. 6. 50,08				50,20	57,63		17. 7. 47,87			B.
May 29	β Leonis	55,6	9,4	23,3	37,7	51,7	5,6	19,3	11. 40. 37,52				37,64	44,61	0,54	11. 41. 22,28			B.
	Polaris SP.	13,7	49,2	19,8	54,7	41,2	....	41,2	13. 3. 57,97				55,29			13. 4. 39,96			B.
	H. C. 25569	9,1	22,7	36,1	49,5	3,2	16,4	30,0	13. 45. 49,58				49,69			13. 46. 34,38			B.
	α Coronæ Borealis.	49,4	4,5	19,3	34,9	50,0	4,9	20,1	15. 27. 34,73				34,87	44,77		15. 28. 19,60			B.
	α Serpentis	26,7	40,1	53,6	7,2	20,9	34,3	48,1	15. 36. 7,27				7,38	44,63		15. 36. 52,11			B.
	(l) Antares	42,1	57,2	12,0	27,2	42,2	56,9	12,0	16. 19. 27,09				27,16	44,82		16. 20. 11,91			B.
May 31	(m) Polaris SP. ....	....	52,0	19,5	57,8	39,6	8,7	....	13. 3. 59,52				56,84		0,52	13. 4. 42,58			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40°,362, - 26°,877, - 13°,616, + 0°,065, + 13°,537, + 26°,890, + 40°,362.

(a) 'Wire V not good.' (b) Irregular motion. (c) Extremely unsteady and badly defined. Observations this night were quite uncertain, the stars being very tremulous and without definition. (d) Faint. (e) Barely seen from cloud. (f) Cloudy. (g) Very faint. 'A brighter object of less N.P.D. followed.' The clock had been suffered to run down, and had not yet recovered its usual rate. (h) Bad definition. (i) Very faint. (k) Unsteady and indefinite. Between May 23 and May 29 the minute hand of the clock was adjusted, having been left 48^m slow after the clock was set going. (l) The noted times, which were not taken from the clock, have been corrected by - 24^s. (m) 'Very good.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		"	"	"					
May 31	Spica.....	49,7	3,3	16,8	30,6	44,2	58,0	11,6	13. 16. 30,60	+0,1	+1,9	+0,5	30,69	45,77	0,52	13. 17. 16,44	B.
	Arcturus.....	19,2	33,6	47,9	2,2	16,7	31,0	45,1	14. 8. 2,24				2,37	45,84		14. 8. 48,14	B.
	ε Bootis.....	53,9	8,9	24,1	39,4	54,9	9,8	25,0	14. 37. 39,43				39,57	45,77		14. 38. 25,35	B.
	α ² Libræ.....	6,7	20,2	34,1	48,4	2,4	16,3	30,1	14. 41. 48,32				48,41	45,84		14. 42. 34,19	B.
	δ Ophiuchi.....	2,1	15,6	29,0	42,8	56,1	9,4	23,0	16. 5. 42,57				42,68	45,72		16. 6. 28,49	B.
	χ Ophiuchi.....	50,9	5,1	19,0	33,3	47,6	1,7	16,0	16. 17. 33,37				33,46			16. 18. 19,27	B.
	Antares.....	41,1	56,1	11,2	26,3	41,0	56,2	10,9	16. 19. 26,12				26,20	45,80		16. 20. 12,01	B.
	α Herculis.....	20,2	34,0	48,0	2,1	16,0	29,9	43,9	17. 7. 2,01				2,13	45,80		17. 7. 47,96	B.
	Polaris.....	....	44,0	12,0	58,0	32,5	2,5	....	1. 3. 53,80				56,73		0,55	1. 4. 42,71	B.
June 1	(a) Polaris SP.	15,0	48,5	22,5	56,5	40,0	10,0	44,2	13. 3. 59,53				56,85			13. 4. 43,10	B.
	Spica.....	49,0	2,9	16,2	29,9	43,9	57,6	11,1	13. 16. 30,09				30,18	46,27		13. 17. 16,43	B.
	ε Bootis.....	53,1	8,3	23,4	39,0	54,1	9,0	24,2	14. 37. 38,73				38,87	46,46		14. 38. 25,16	B.
	(b) α ² Libræ.....	6,0	20,0	33,8	48,1	2,0	15,8	29,9	14. 41. 47,95				48,04	46,21		14. 42. 34,33	B.
	α Coronæ Borealis.	47,9	3,1	17,9	33,2	48,2	3,2	18,6	15. 27. 33,15				33,29	46,36		15. 28. 19,59	B.
	α Serpentis.....	25,1	38,7	51,9	5,9	19,5	32,9	46,2	15. 36. 5,74				5,85	46,17		15. 36. 52,16	B.
June 2	Bessel xiv. 111...	....	4,0	17,2	31,3	45,0	58,8	....	14. 5. 31,26				31,35		0,62	14. 6. 18,23	B.
	Bessel xiv. 193...	36,3	50,2	3,6	17,4	31,3	44,8	58,5	14. 10. 17,45				17,55			14. 11. 4,43	B.
	Bessel xiv. 280...	6,9	20,6	34,1	48,2	2,1	15,2	29,1	14. 14. 48,03				48,12			14. 15. 35,00	B.
	H. C. 26437.....	0,1	13,7	27,0	41,0	54,7	8,1	22,0	14. 20. 40,94				41,04			14. 21. 27,92	B.
	Bessel xiv. 451...	4,7	18,2	31,7	45,7	59,4	12,8	26,1	14. 23. 45,51				45,61			14. 24. 32,49	B.
	B.A.C. 4824.....	48,4	1,9	15,1	28,9	42,9	56,1	10,1	14. 27. 29,06				29,16			14. 28. 16,04	B.
	H. C. 26730.....	54,9	....	23,1	37,1	51,8	5,8	19,9	14. 32. 37,39				37,48			14. 33. 24,36	B.
	Bessel xiv. 671...	14,7	28,1	41,7	55,6	9,0	22,8	36,1	14. 35. 55,43				55,53			14. 36. 42,42	B.
	Bessel xiv. 735...	5,7	19,2	32,8	46,9	0,8	14,1	28,0	14. 38. 46,79				46,88			14. 39. 33,77	B.
	Bessel xiv. 780...	....	31,9	45,1	59,4	13,6	27,1	....	14. 40. 59,42				59,51			14. 41. 46,40	B.
	Bessel xiv. 846...	15,2	28,8	42,2	56,2	9,9	23,9	37,7	14. 43. 56,27				56,36			14. 44. 43,25	B.
	Bessel xiv. 896...	5,6	19,2	33,0	47,1	0,9	14,2	28,1	14. 46. 46,87				46,96			14. 47. 33,85	B.
	(c) 18 Libræ.....	18,0	31,8	45,1	59,0	12,9	26,2	40,2	14. 49. 59,03				59,13			14. 50. 46,02	B.
	α Coronæ Borealis.	47,2	2,1	17,1	32,2	48,0	2,8	17,9	15. 27. 32,47				32,61	47,04		15. 28. 19,52	B.
	α Serpentis.....	24,5	38,1	51,2	5,3	19,0	32,1	45,8	15. 36. 5,14				5,25	46,77		15. 36. 52,16	B.
	Antares.....	40,1	54,9	9,9	24,9	40,0	55,1	10,0	16. 19. 24,99				25,08	46,94		16. 20. 12,01	B.
June 4	(d) Spica.....	47,3	0,9	14,1	28,0	42,0	55,8	9,3	13. 16. 28,20		+1,5		28,28	48,15	0,58		B.
June 8	(e) Polaris SP. ....	....	52,0	20,5	57,0	....	5,0	42,0	1. 3. 58,31			+2,1	59,01		-0,09		B.
	(f) Spica.....	45,9	59,2	12,9	26,9	40,7	54,1	8,0	13. 16. 26,82				27,00	49,40		13. 17. 16,38	B.
	(g) H. C. 25637.....	13,8	28,1	43,0	57,8	12,0	27,0	41,7	13. 47. 57,63				57,79			13. 48. 47,17	B.
	97 Virginis.....	2,8	15,9	29,3	43,2	57,0	10,8	24,2	14. 3. 43,31				43,49			14. 4. 32,87	B.
	(h) Arcturus.....	15,8	30,1	44,0	58,8	12,9	27,2	41,2	14. 7. 58,58				58,75	49,41		14. 8. 48,13	B.
	Bessel xiv. 220...	45,9	59,2	12,7	26,3	40,7	53,7	7,1	14. 11. 26,52				26,70			14. 12. 16,08	B.
	(i) Bessel xiv. 353...	....	10,9	24,2	37,9	....	....	....	14. 18. 38,00				38,18			14. 19. 27,56	B.
	Bessel xiv. 439...	36,7	50,2	4,0	17,9	31,8	44,9	58,7	14. 23. 17,75				17,93			14. 24. 7,31	B.
	(k) Bessel xiv. 553...	30,0	43,8	57,2	11,3	25,1	....	52,7	14. 29. 11,27				11,45			14. 30. 0,83	B.
	α ² Libræ.....	3,1	16,7	30,6	44,9	59,0	12,5	26,3	14. 41. 44,73				44,91	49,32		14. 42. 34,28	B.
α Herculis.....	16,9	30,8	44,4	58,7	12,4	26,2	40,1	17. 6. 58,50				58,67	49,34		17. 7. 48,04	B.	
June 9	(l) B.A.C. 4683.....	34,1	48,1	....	16,1	30,2	43,8	57,3	13. 56. 15,93				16,11		-0,13	13. 57. 5,40	B.
	Bessel xiv. 87....	9,3	23,1	36,9	51,0	4,8	18,2	32,0	14. 4. 50,75				50,93			14. 5. 40,22	B.
	Arcturus.....	15,7	29,8	44,2	58,8	12,9	26,8	41,2	14. 7. 58,49				58,65	49,51		14. 8. 47,94	B.
	B.A.C. 4794.....	59,8	13,3	27,0	41,0	54,5	8,0	21,8	14. 19. 40,77				40,95			14. 20. 30,24	B.
	(l) Bessel xiv. 523...	5,3	19,1	32,9	46,2	0,3	14,1	27,8	14. 27. 46,53				46,71			14. 28. 36,00	B.
	B.A.C. 4837.....	....	39,1	52,3	6,3	19,9	33,7	....	14. 30. 6,26				6,44			14. 30. 55,73	B.
	Bessel xiv. 608...	41,4	55,0	8,8	22,7	36,4	50,0	3,7	14. 32. 22,57				22,75			14. 33. 12,04	B.
	Bessel xiv. 662...	38,9	52,8	6,0	20,2	34,1	47,3	1,1	14. 35. 20,05				20,23			14. 36. 9,52	B.
	Bessel xiv. 726...	27,3	41,1	54,9	8,8	22,3	36,1	50,0	14. 38. 8,65				8,83			14. 38. 58,12	B.
	α ² Libræ.....	3,0	16,9	30,2	44,7	58,9	12,8	26,4	14. 41. 44,70				44,88	49,35		14. 42. 34,17	B.
	(l)(m) Bessel xiv. 896.	....	16,8	30,2	44,3	58,2	11,7	....	14. 46. 44,24				44,42			14. 47. 33,71	B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^{\circ}362$, $-26^{\circ}877$, $-13^{\circ}616$, $+0^{\circ}065$, $+13^{\circ}537$, $+26^{\circ}890$, $+40^{\circ}362$.

(a) 'Very good.' (b) Cloudy, as it generally was this evening. (c) 'Mag. 6,7: the following and brighter of two.' All the wires have been corrected by +12". (d) Disturbance. (e) Tremulous, except at wires II and VII. (f) Very unsteady. (g) Faint from day-light. (h) Flaring. (i) Very faint from cloud. (k) Cloudy. (l) Very faint. (m) Mist.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
June 9	17 Libræ.....	47,9	1,8	15,8	29,2	43,0	....	14.49.15,54	+0,1	+1,5	+2,1	15,72		-0,13	14.50.5,01	B.		
	Bessel xiv. 1069..	54,0	8,1	21,2	35,8	49,8	3,3	17,2	14.55.35,63			35,81			14.56.25,10	B.			
	(a) H. C. 27495.....	49,1	2,2	17,0	31,0	44,8	....	14.58.16,82				17,00			14.59.6,29	B.		
	Bessel xv. 34.....	27,9	41,7	54,9	9,1	23,1	36,8	50,2	15.2.9,10			9,28			15.2.58,57	B.			
	Bessel xv. 91.....	29,1	42,9	56,8	10,8	24,8	38,3	52,1	15.5.10,68			10,86			15.6.0,15	B.			
	Bessel xv. 135.....	58,0	11,8	25,9	39,9	53,5	....	15.7.25,82				26,00			15.8.15,29	B.		
	(b)(c) Bessel xv. 199..	4,8	19,1	....	46,8	1,0	....	28,1	15.10.46,70			46,88			15.11.36,17	B.	
	(b) Bessel xv. 259...	23,8	37,7	51,3	5,8	19,4	33,2	46,9	15.14.5,44			5,62			15.14.54,91	B.			
	H. C. 28126.....	9,2	23,0	37,0	51,1	5,1	19,0	32,8	15.17.51,02			51,20			15.18.40,49	B.			
	Bessel xv. 419...	8,0	21,8	35,2	49,7	3,7	17,2	31,1	15.21.49,53			49,71			15.22.39,00	B.			
	H. C. 28320.....	10,3	24,1	38,1	52,2	6,1	19,9	33,5	15.24.52,03			52,21			15.25.41,50	B.			
	α Coronæ Borealis.	44,8	59,9	15,0	30,0	45,1	0,1	15,6	15.27.30,07			30,23	49,41		15.28.19,52	B.			
	α Serpentis.....	21,9	35,7	49,0	2,8	16,7	30,0	43,2	15.36.2,76			2,93	49,11		15.36.52,22	B.			
	Antares.....	38,0	52,9	7,3	22,9	37,9	52,7	7,8	16.19.22,78			22,96	49,11		16.20.12,24	B.			
	H. C. 31042.....	31,4	45,7	59,4	14,1	28,0	42,1	56,0	16.56.13,81			13,99			16.57.3,27	B.			
	H. C. 31157.....	21,2	35,1	49,1	3,1	16,8	....	16.59.49,06				49,24			17.0.38,52	B.		
	(d) H. C. 31258.....	22,0	35,7	50,2	4,2	18,2	....	17.2.50,06				50,24			17.3.39,52	B.		
	α Herculis.....	16,9	30,8	44,8	58,7	12,8	26,3	40,2	17.6.58,65			58,82	49,20		17.7.48,10	B.			
	α Ophiuchi.....	27,1	40,8	54,4	8,2	22,2	36,0	49,9	17.27.8,37			8,54	49,29		17.27.57,82	B.			
June 11	B.A.C. 4666.....	....	....	6,7	20,1	34,0	47,3	1,0	13.51.20,26		+0,9	20,42		-0,18	13.52.9,33	B.	
	B.A.C. 4680.....	....	....	....	35,0	48,8	2,0	15,8	13.55.34,96			35,12			13.56.24,03	B.
	(e) B.A.C. 4772.....	6,2	19,8	33,3	47,4	1,0	14,7	28,1	14.15.47,22			47,38			14.16.36,29	B.			
	Bessel xiv. 347...	40,0	53,9	7,5	21,8	35,2	49,2	3,2	14.18.21,54			21,70			14.19.10,61	B.			
	H. C. 26437.....	11,8	25,1	39,0	52,8	6,4	....	14.20.39,02				39,18			14.21.28,09	B.		
	Bessel xiv. 441...	....	....	4,3	18,2	31,9	....	14.23.18,13				18,29			14.24.7,20	B.
	(f) Bessel xiv. 493...	....	....	....	26,7	40,2	54,1	14.26.12,92				13,03			14.27.1,99	B.
	H. C. 26657.....	31,8	45,2	58,8	12,7	26,5	40,0	53,6	14.29.12,66			12,82			14.30.1,73	B.			
	Bessel xiv. 593...	2,7	16,2	30,1	44,0	58,0	....	14.31.30,20				30,36			14.32.19,27	B.		
	(b) Bessel xiv. 652...	....	....	....	50,7	4,0	17,8	14.34.36,73				36,89			14.35.25,79	B.
	(b) H. C. 26882.....	41,1	54,3	8,1	22,1	36,1	49,5	3,0	14.37.22,03			22,19			14.38.11,09	B.			
	α ² Libræ.....	3,3	17,1	31,0	45,3	59,2	13,0	27,1	14.41.45,14			45,30	48,93		14.42.34,20	B.			
	Bessel xiv. 852...	37,2	51,1	4,7	18,6	32,1	46,0	59,3	14.44.18,43			18,59			14.45.7,49	B.			
	(b) Bessel xiv. 891...	57,6	....	25,3	39,1	52,9	7,2	14.46.25,26				25,42			14.47.14,32	B.		
	Bessel xiv. 928...	2,1	15,7	29,8	43,8	57,2	....	14.48.29,72				29,88			14.49.18,78	B.		
	H. C. 27288.....	22,3	36,8	50,8	5,0	19,1	33,1	47,3	14.51.4,91			5,09			14.51.53,99	B.			
	H. C. 27385.....	39,1	53,2	7,1	21,1	35,2	49,1	3,1	14.54.21,12			21,28			14.55.10,18	B.			
	ν ¹ Libræ.....	44,1	58,2	12,0	26,1	40,2	54,1	7,9	14.57.26,09			26,25			14.58.15,15	B.			
	Bessel xiv. 1150..	14,8	29,0	42,7	56,7	10,4	24,1	38,0	14.59.56,53			56,69			15.0.45,59	B.			
	H. C. 27641.....	55,8	9,7	23,1	37,6	51,8	5,3	19,2	15.2.37,50			37,66			15.3.26,56	B.			
	Bessel xv. 91.....	43,3	56,8	11,2	25,0	38,8	....	15.5.11,02				11,18			15.6.0,08	B.		
	Bessel xv. 135...	45,1	58,8	12,7	26,3	40,1	53,9	7,6	15.7.26,36			26,52			15.8.15,42	B.			
	Bessel xv. 185...	15,3	28,8	43,0	56,7	10,9	24,1	38,3	15.9.56,73			56,89			15.10.45,79	B.			
	α ² Libræ.....	8,4	22,1	36,0	50,2	4,3	18,1	32,0	15.13.50,15			50,31			15.14.39,21	B.			
	(g) Bessel xv. 314...	42,2	56,2	10,2	23,8	38,2	51,3	6,0	15.16.23,99			24,15			15.17.13,05	B.			
	ζ ¹ Libræ.....	16,1	30,2	44,0	58,3	12,2	26,2	40,1	15.18.58,16			58,32			15.19.47,22	B.			
	H. C. 28233.....	56,6	10,8	24,8	39,1	53,3	7,5	21,5	15.21.39,09			39,27			15.22.28,17	B.			
	(h) H. C. 28296.....	44,0	57,8	12,8	27,1	41,4	....	15.24.12,62				12,80			15.25.1,70	B.		
	(i) α Coronæ Borealis.	45,1	0,2	15,0	30,9	45,9	0,9	16,0	15.27.30,57			30,69	48,95		15.28.19,53	B.			
	(i) α Serpentis.....	22,8	36,0	49,2	3,0	16,7	30,0	....	15.36.3,05			3,19	48,85		15.36.52,03	B.		
	(i) α Ophiuchi.....	27,8	....	55,0	9,0	22,8	36,2	50,1	17.27.8,89			9,03	48,82		17.27.57,91	B.		
June 13	Arcturus.....	16,2	30,7	44,8	59,3	13,5	27,8	42,1	14.7.59,20			59,33	48,80	-0,09	14.8.47,93	B.			
	(k) Bessel xiv. 493...	....	....	0,6	....	27,0	....	54,0	14.26.13,53			13,69			14.27.2,29	B.
	Bessel xiv. 596...	39,5	53,1	7,0	20,9	34,3	....	14.30.6,96			7,12			14.30.55,72	B.			
	(b) H. C. 26849.....	....	....	13,0	26,8	40,9	55,1	8,8	14.36.26,92			27,08			14.37.15,68	B.	
	α ² Libræ.....	3,8	17,6	31,2	45,7	59,8	13,4	27,3	14.41.45,54			45,70	48,52		14.42.34,29	B.			
	H. C. 27080.....	37,8	52,2	6,3	20,8	35,1	49,1	3,9	14.44.20,74			20,92			14.45.9,51	B.			
	Bessel xiv. 896...	18,0	31,0	45,1	58,9	12,7	....	14.46.45,14			45,30			14.47.33,89	B.			

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^{\circ}362$, $-26^{\circ}877$, $-13^{\circ}616$, $+0^{\circ}065$, $+13^{\circ}537$, $+26^{\circ}890$ $+40^{\circ}362$.

(a) 'One of less N.P.D. precedes.' (b) Very faint. (c) 'Another precedes.' (d) 'One of equal magnitude follows.' (e) 'Mag. 7.8.'
 (f) Extremely faint, could not be seen before. (g) Estimated at Mag. 9.10. (h) Barely visible. (i) Cloudy. (k) Scarcely perceptible.
 Wire III was set down 3,6 and has been altered conjecturally.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
June 13	H. C. 27229.....	....	45,9	59,9	14,5	29,0	44,0	....	14. 49. 14,66	+0,1	+0,9	+2,1	14,84		-0,09	14. 50. 3,43			B.
	Bessel xiv. 986...	....	4,8	18,6	32,4	46,1	0,0	....	14. 51. 32,38				32,54			14. 52. 21,13			B.
	B.A.C. 4947.....	....	23,1	37,1	51,2	5,3	19,1	....	14. 53. 51,16				51,33			14. 54. 39,92			B.
	B.A.C. 4964.....	....	11,1	25,6	40,2	55,1	9,7	....	14. 56. 40,34				40,51			14. 57. 29,10			B.
	B.A.C. 4984.....	....	....	....	17,1	32,0	46,3	1,1	15. 0. 17,12				17,29			15. 1. 5,88			B.
	(a) B.A.C. 4998.....	58,3	13,0	27,3	42,0	57,0	11,7	26,1	15. 3. 42,20				42,37			15. 4. 30,96			B.
	(b) B.A.C. 5027.....	27,6	42,2	57,0	12,0	26,8	41,2	55,7	15. 7. 11,78				11,95			15. 8. 0,54			B.
	Bessel xv. 218 ...	4,0	17,8	31,8	46,0	59,6	13,7	27,2	15. 11. 45,73				45,89			15. 12. 34,48			B.
	H. C. 28046.....	....	56,7	10,9	25,8	40,1	54,2	....	15. 15. 25,54				25,72			15. 16. 14,31			B.
	(c) H. C. 28137.....	48,3	1,5	15,7	30,1	43,8	57,4	11,9	15. 18. 29,81				29,97			15. 19. 18,56			B.
	Bessel xv. 419 ...	....	22,3	35,8	50,3	4,6	18,2	....	15. 21. 50,24				50,40			15. 22. 38,99			B.
	α Coronæ Borealis.	45,7	0,8	15,6	31,0	46,1	1,0	16,1	15. 27. 30,90				31,02	48,61		15. 28. 19,61			B.
	Bessel xv. 597 ...	56,9	11,0	24,8	38,8	52,4	6,2	20,1	15. 30. 38,60				38,76			15. 31. 27,35			B.
	B.A.C. 5184.....	48,8	2,8	16,3	30,8	44,8	58,9	12,6	15. 33. 30,71				30,87			15. 34. 19,46			B.
	α Serpentis	22,8	36,3	49,6	3,8	17,1	30,6	44,0	15. 36. 3,46				3,60	48,44		15. 36. 52,19			B.
	(d) H. C. 28752.....	....	38,8	....	7,3	22,8	37,0	51,3	15. 39. 7,69				7,86			15. 39. 56,45			B.
	H. C. 28838.....	28,1	42,2	56,3	11,0	25,1	39,1	53,2	15. 42. 10,71				10,89			15. 42. 59,48			B.
	3 Scorpii.....	....	....	35,0	50,0	5,1	19,8	34,5	15. 44. 50,06				50,23			15. 45. 38,82			B.
	B.A.C. 5278.....	....	7,0	21,1	35,9	50,3	4,8	....	15. 47. 35,82				36,00			15. 48. 24,59			B.
	δ Scorpii.....	55,0	9,8	23,9	38,8	53,1	7,8	22,2	15. 50. 38,66				38,83			15. 51. 27,42			B.
	H. C. 29156.....	52,0	6,1	20,2	34,8	49,2	3,1	17,7	15. 53. 34,73				34,91			15. 54. 23,50			B.
	B.A.C. 5335.....	....	50,9	5,7	20,2	35,1	50,0	....	15. 56. 20,38				20,55			15. 57. 9,14			B.
	H. C. 29347.....	15,7	29,0	44,1	58,9	13,2	27,4	41,9	15. 58. 58,60				58,78			15. 59. 47,37			B.
	H. C. 29456.....	25,8	....	54,5	9,1	24,1	....	53,0	16. 2. 9,30				9,47			16. 2. 58,06			B.
	δ Ophiuchi	59,3	13,0	26,1	39,9	53,3	6,9	20,1	16. 5. 39,80				39,95	48,51		16. 6. 28,54			B.
	Antares	38,4	53,2	7,9	23,3	38,3	53,2	8,1	16. 19. 23,20				23,37	48,72		16. 20. 11,96			B.
	(e) α Ophiuchi .....	....	41,4	55,1	9,3	23,2	36,9	....	17. 27. 9,18				9,31	48,55		17. 27. 57,89			B.
June 14	(f) α ² Libræ.....	3,8	17,8	31,3	45,5	59,7	13,4	27,2	14. 41. 45,53				45,69	48,52	-0,06	14. 42. 34,22			B.
	(f) α Serpentis	22,9	36,2	49,8	3,1	17,1	30,7	44,1	15. 36. 3,41				3,55	48,49		15. 36. 52,08			B.
	(f) H. C. 28766.....	57,9	11,4	26,2	40,8	54,7	8,8	23,0	15. 39. 40,40				40,58			15. 40. 29,11			B.
	H. C. 28838.....	....	....	56,8	10,7	24,9	39,0	53,2	15. 42. 10,75				10,93			15. 42. 59,46			B.
	(g) H. C. 28954.....	47,8	....	16,0	29,4	43,8	57,5	10,9	15. 46. 29,60				29,76			15. 47. 18,29			B.
	(g) H. C. 29113.....	....	45,7	....	17,5	....	45,4	59,5	15. 52. 16,16				16,34			15. 53. 4,87			B.
	(f) α Ophiuchi	27,9	41,2	55,2	9,2	23,2	36,8	50,6	17. 27. 9,16				9,29	48,58		17. 27. 57,82			B.
June 19	(h) α ² Libræ.....	2,8	17,0	30,6	44,8	58,8	12,7	26,4	14. 41. 44,73		+1,2	-1,2	44,69	49,50	0,30	14. 42. 34,14			B.
	H. C. 28126.....	9,7	23,2	37,0	51,2	5,4	19,2	32,9	15. 17. 51,22				51,19			15. 18. 40,65			B.
	Bessel xv. 400 ...	....	17,0	30,8	44,8	58,7	12,4	....	15. 20. 44,74				44,71			15. 21. 34,17			B.
	H. C. 28345.....	57,8	11,9	25,8	40,1	54,1	7,9	22,0	15. 25. 39,94				39,90			15. 26. 29,36			B.
	α Coronæ Borealis.	....	....	....	30,1	45,6	0,3	15,5	15. 27. 30,14				30,18	49,42		15. 28. 19,64			B.
	α Serpentis	21,9	35,3	48,9	2,8	16,3	29,8	43,1	15. 36. 2,58				2,58	49,45		15. 36. 52,05			B.
	H. C. 28766.....	57,1	11,2	25,1	39,8	54,0	8,1	22,0	15. 39. 39,62				39,59			15. 40. 29,06			B.
	Bessel xv. 838 ...	40,8	54,8	8,3	22,3	36,3	50,1	4,1	15. 42. 22,38				22,35			15. 43. 11,82			B.
	δ Scorpii.....	55,0	9,1	23,2	38,2	52,6	7,2	21,2	15. 50. 38,07				38,02			15. 51. 27,49			B.
	α Ophiuchi	26,8	40,9	54,4	8,5	22,2	35,9	49,9	17. 27. 8,37				8,38	49,53		17. 27. 57,87			B.
June 20	(f) α ² Libræ.....	2,7	16,6	30,1	44,2	58,5	12,1	26,1	14. 41. 44,53				44,29	49,90	0,20	14. 42. 34,06			B.
	(f) δ Ophiuchi	58,4	11,8	25,1	38,8	52,3	5,8	19,1	16. 5. 38,76				38,75	49,73		16. 6. 28,53			B.
	(f) α Herculis	16,9	30,8	44,2	58,4	12,2	26,0	40,1	17. 6. 58,38				58,39	49,70		17. 7. 48,18			B.
June 21	(i) α Serpentis	21,7	35,1	48,8	2,1	16,0	28,9	43,0	15. 36. 2,23				2,23	49,80	0,18	15. 36. 52,10			B.
	μ ¹ Sagittarii .....	....	....	....	56,9	11,1	25,8	39,9	18. 3. 56,76				56,72	49,96		18. 4. 46,61			B.
	ζ Aquilæ.....	....	13,0	26,4	40,9	54,7	8,2	....	18. 57. 40,64				40,65	49,89		18. 58. 30,54			B.
June 22	H. C. 27825.....	40,0	54,0	8,1	22,7	37,1	51,2	5,6	15. 8. 22,67				22,63		0,41	15. 9. 12,75			B.
	Bessel xv. 206. ...	21,1	34,9	48,3	2,8	16,4	30,1	43,8	15. 11. 2,48				2,45			15. 11. 52,57			B.
	α ² Libræ	7,0	21,1	34,8	49,1	3,0	16,8	30,8	15. 13. 48,95				48,92			15. 14. 39,04			B.
	H. C. 28212.....	22,4	36,7	50,9	5,3	20,1	34,0	48,6	15. 21. 5,43				5,39			15. 21. 55,51			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,362, -26°,877, -13°,616, +0°,065, +13°,537, +26°,890, +40°,362.

(a) Wires VI and VII have been diminished 30°.
(c) 'Preceded by a very faint star of less N.P.D.' was at 41°.
(f) Cloudy during these evenings.

(b) Between wires I and II the eye-end of the Telescope was slightly struck on the West side.
(d) Very faint. 'A brighter of greater N.P.D. preceded.'
(g) Very faint from cloud.

(e) At this time the temperature
(h) An undefined patch of light.
(i) Clouded and badly

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.					
June 22	α Coronæ Borealis.	44,1	59,0	14,1	29,5	44,6	59,7	14,8	15.27.29,40	+0,1	+1,2	-1,2	29,44	50,15	0,41	15.28.19,56	B.
	α Serpentis.....	21,2	34,9	48,2	2,0	15,7	29,1	42,7	15.36.1,97				1,97	50,05		15.36.52,09	B.
	(a) α^1 Capricorni.....	....	25,0	38,4	52,3	6,2	20,0	33,8	20.8.52,38				52,35	50,26		20.9.42,55	B.
June 23	H. C. 28062.....	5,7	20,1	34,2	49,0	3,8	17,9	32,2	15.15.48,99			+1,1	48,95		0,49	15.16.39,60	B.
	H. C. 28166.....	43,0	57,7	12,2	27,1	42,1	56,4	11,1	15.19.27,09				27,03			15.20.17,68	B.
	H. C. 28247.....	....	56,1	10,3	25,1	39,8	53,7	....	15.22.25,00				24,96			15.23.15,61	B.
	α Coronæ Borealis.	43,6	58,7	13,7	28,9	44,1	59,0	14,1	15.27.28,87				28,91	50,62		15.28.19,57	B.
	α Serpentis.....	20,9	34,3	47,5	1,2	15,1	28,7	41,9	15.36.1,35				1,34	50,68		15.36.52,00	B.
	(b) Bessel xv. 950....	10,7	24,3	38,0	52,0	6,0	20,0	33,5	15.49.52,07				52,08			15.49.42,74	B.
	μ^1 Sagittarii.....	12,9	27,1	41,4	56,1	10,7	25,0	39,1	18.3.56,04				56,00	50,70		18.4.46,71	B.
June 25	α Ophiuchi.....	25,0	38,8	52,3	6,3	20,2	34,0	47,9	17.27.6,36				6,36	51,57	0,43	17.27.57,85	B.
	μ^1 Sagittarii.....	11,9	26,4	40,8	55,1	10,0	24,1	38,8	18.3.55,30				55,26	51,47		18.4.46,77	B.
	δ Ursæ Minoris...	6,8	52,6	....	27,1	....	0,5	46,5	18.20.26,43				28,12	51,50		18.20.26,43	B.
	ζ Aquilæ.....	57,7	11,3	25,0	39,0	53,1	6,8	20,7	18.57.39,09				39,10	51,50		18.58.30,62	B.
June 26	(a) α Coronæ Borealis.	42,1	57,2	12,2	27,7	43,0	57,9	13,0	15.27.27,59				27,63	51,93	0,45		B.
June 27	α Serpentis.....	19,0	32,2	45,7	59,7	13,2	26,7	40,2	15.35.59,53				59,52	52,48	0,40	15.36.51,88	B.
	H. C. 28954.....	44,1	58,1	11,7	25,8	39,8	53,8	7,3	15.46.25,80				25,76			15.47.18,12	B.
	(c) H. C. 29043.....	....	....	16,1	31,0	45,0	0,0	14,6	15.49.31,07				31,03			15.50.23,39	B.
	α Herculis.....	13,9	27,9	41,8	56,0	9,9	23,8	37,2	17.6.55,79				55,80	52,31		17.7.48,18	B.
	(d) Σ 2224.....	....	....	....	....	28,0	44,0	1,3	17.41.9,58				9,64			17.41.2,04	B.
	(e) * N.P.D. 68°. 34'.	52,0	5,9	20,8	34,7	49,8	....	19,9	17.59.35,16				35,18			17.59.27,58	B.
	(f) Σ 2286.....	11,4	25,1	38,2	52,1	6,0	19,5	32,2	18.1.52,07				52,06			18.2.44,46	B.
	α^1 Capricorni.....	8,9	22,9	36,3	50,2	4,2	18,0	31,9	20.8.50,34				50,31	52,40		20.9.42,75	B.
June 30	α Coronæ Borealis.	41,2	56,1	10,8	26,2	41,2	56,2	11,3	15.27.26,15			+0,7	26,16	53,37	0,30	15.28.19,42	B.
	α Serpentis.....	18,1	31,9	45,0	58,8	12,2	26,0	39,3	15.35.58,76				58,73	53,26		15.36.51,99	B.
	(a) δ Scorpii.....	....	5,0	19,5	34,1	48,9	3,0	....	15.50.34,10				34,04			15.51.27,31	B.
	α Herculis.....	13,2	27,1	40,9	55,1	9,0	22,8	36,2	17.6.54,90				54,89	53,23		17.7.48,17	B.
	(g) α Ophiuchi.....	23,3	37,0	51,0	4,8	18,6	32,2	46,1	17.27.4,71				4,69	53,27		17.27.57,98	B.
	(h) H. C. 32194.....	53,8	8,7	22,2	37,1	51,1	5,2	18,8	17.31.36,70				36,66			17.32.29,95	B.
July 6	α Ophiuchi.....	21,8	35,7	49,1	3,2	17,1	30,4	44,3	17.27.3,08			-1,0	3,07	54,90	0,30	17.27.58,13	B.
	(a) δ Ursæ Minoris...	....	....	32,3	22,8	....	57,0	43,8	18.20.22,49				23,69			18.20.22,49	B.
	β Lyrae.....	....	5,3	21,4	37,7	54,0	10,1	25,8	18.43.37,68				37,65	55,34		18.44.32,72	B.
	(i) ζ Aquilæ.....	54,1	8,1	21,9	36,0	49,8	3,2	17,2	18.57.35,76				35,75	54,96		18.58.30,82	B.
July 7	(k) δ Ophiuchi.....	....	13,8	27,1	40,8	54,2	7,8	....	16.5.40,74			+1,4	40,75	47,69	-1,50	16.6.28,40	B.
	α Ophiuchi.....	29,1	42,8	56,4	10,6	24,2	38,1	51,9	17.27.10,44				10,47	47,50		17.27.58,03	B.
	μ Sagittarii.....	16,1	30,3	44,9	59,3	14,0	28,0	42,7	18.3.59,33				59,31	47,51		18.4.46,83	B.
July 10	(l) β Lyrae.....	....	....	46,9	3,0	19,1	35,1	51,1	18.44.2,97				3,05	29,96	-0,58	18.44.32,82	B.
	ζ Aquilæ.....	19,7	33,2	46,9	1,0	15,0	28,8	42,5	18.58.1,01				1,04	29,71		18.58.30,80	B.
	γ Aquilæ.....	56,8	10,1	24,1	38,0	51,2	5,0	18,6	19.38.37,69				37,71	29,66		19.39.7,46	B.
	α Aquilæ.....	16,8	30,3	43,8	57,8	11,6	25,0	38,7	19.42.57,72				57,74	29,69		19.43.27,48	B.
	α^1 Capricorni.....	31,7	45,3	59,2	13,3	27,1	41,0	54,7	20.9.13,18				13,17	29,77		20.9.42,90	B.
July 11	(m) α Herculis.....	37,1	51,1	4,7	18,8	32,8	46,7	0,6	17.7.18,83				18,86	29,23	-0,01		B.
	θ Ophiuchi.....	33,3	48,0	3,0	18,0	33,1	47,7	2,7	17.12.17,97				17,93			17.12.47,25	B.
	(n) H. C. 31723.....	35,8	49,1	4,0	18,1	32,4	45,9	0,8	17.18.18,02				18,00			17.18.47,32	B.
	(n) H. C. 31814.....	....	5,8	20,3	35,0	50,0	4,3	....	17.21.35,08				35,04			17.22.4,36	B.
	(o) H. C. 31955.....	34,8	49,0	3,0	17,1	31,3	45,3	59,9	17.25.17,20				17,19			17.25.46,51	B.
	α Ophiuchi.....	47,0	1,1	14,7	28,7	42,2	56,0	9,9	17.27.28,52				28,55	29,42			B.
	(p) H. C. 32211.....	59,8	14,8	29,1	44,1	59,0	13,2	28,0	17.32.44,00				43,96			17.33.13,28	B.
	H. C. 32344.....	23,4	38,1	53,6	8,8	24,1	38,8	53,9	17.36.8,67				8,63			17.36.37,95	B.
	H. C. 32471.....	59,1	13,8	28,4	43,2	58,0	13,0	27,2	17.39.43,24				43,20			17.40.12,52	B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,362, -26°,877, -13°,616, +0°,065, +13°,537, +26°,890, +40°,362.

(a) Cloudy. (b) 'The following, and perhaps the brighter, of two of nearly the same N.P.D.' (c) Very faint. Wire IV was set down 32,0, and has been altered conjecturally. (d) Very cloudy: not observed to be double. The intervals are irregular. (e) 'A fainter of somewhat greater N.P.D. precedes &c.' The preceding star is Σ 341. (f) This is Bessel xviii. 37. (g) Very badly defined. (h) The intervals are very irregular. (i) Heavy cumuli continually passing. (k) On July 7 at 1h.40m Mr Breen found that Hardy had stopped and set it going. It stopped again on the night of that day, and I subsequently discovered that the second-hand was liable to catch against the minute-hand at a certain hour. (l) The clock was set going at 17h.19m sidereal time. Several observations, taken shortly after, were rejected on account of the uncertainty of the rate. (m) Well-defined. (n) Extremely faint. (o) Corrected by -1m. (p) Faint.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"				h. m. s.	h. m. s.	h. m. s.	
July 11	(a) B.A.C. 6044.....	55,0	....	24,3	39,7	55,0	....	25,0	17.43.39,80	+0,1	+1,4	-1,0	39,76		-0,01	17.44.9,08			B.
July 12	(b) α Coronæ Borealis.	4,1	19,1	34,0	49,8	5,0	19,9	35,0	15.27.49,56				49,62	29,77	0,47	15.28.19,30			B.
	(c) α Serpentis.....	....	55,1	8,7	22,2	36,0	49,1	3,1	15.36.22,26				22,28	29,63		15.36.51,96			B.
	α Ophiuchi.....	47,0	0,8	14,2	28,2	42,3	56,0	9,6	17.27.28,30				28,33	29,63		17.27.58,05			B.
	H. C. 32156.....	26,4	41,0	55,7	10,4	24,9	40,0	54,6	17.31.10,43				10,39			17.31.40,11			B.
	(d) H. C. 32335.....	0,7	14,5	28,2	42,9	57,0	10,8	25,0	17.35.42,73				42,72			17.36.12,45			B.
	H. C. 32493.....	27,8	42,9	57,5	12,9	28,1	43,0	58,0	17.40.12,88				12,84			17.40.42,57			B.
	B.A.C. 6044.....	53,9	8,8	24,0	39,1	54,7	9,4	24,5	17.43.39,20				39,15			17.44.8,88			B.
July 14	Arcturus.. ..	33,8	48,1	2,2	16,8	31,1	44,8	59,7	14.8.16,64		+0,9	-0,5	16,67	31,11	0,56				B.
July 16	α Coronæ Borealis.	....	....	31,2	46,9	2,0	17,0	32,1	15.27.46,71				46,75	32,59	0,67	15.28.19,36			B.
	α Serpentis	38,9	52,2	5,8	19,2	33,0	46,5	0,1	15.36.19,39				19,37	32,51		15.36.51,99			B.
	α Herculis.....	33,9	47,6	1,1	15,4	29,5	43,0	57,1	17.7.15,37				15,40	32,67		17.7.48,06			B.
	B.A.C. 5866.....	26,9	41,4	56,0	10,4	25,0	39,1	53,9	17.15.10,38				10,38			17.15.43,04			B.
	H. C. 31723.....	32,4	46,4	0,1	14,9	29,1	43,1	57,1	17.18.14,73				14,74			17.18.47,40			B.
	ϵ Ophiuchi.....	24,0	38,3	53,1	8,1	23,0	37,2	52,1	17.21.7,97				7,96			17.21.40,62			B.
	H. C. 31922.....	40,1	54,4	9,1	24,0	38,7	53,0	7,6	17.24.23,84				23,83			17.24.56,50			B.
	α Ophiuchi	44,1	57,5	11,1	25,1	38,9	53,0	6,8	17.27.25,21				25,23	32,72		17.27.57,00			B.
	(a) B.A.C. 5961.....	33,1	48,1	3,7	19,2	34,8	50,1	5,2	17.30.19,18				19,16			17.30.51,83			B.
	H. C. 32264.....	17,8	33,3	48,1	3,3	18,8	33,8	48,7	17.34.3,40				3,38			17.34.36,05			B.
	3 Sagittarii.....	48,1	3,3	18,2	34,0	49,0	4,0	19,1	17.37.33,67				33,65			17.38.6,32			B.
	H. C. 32493.....	25,0	39,8	54,8	10,2	25,1	39,9	54,9	17.40.9,96				9,94			17.40.42,61			B.
	H. C. 32604.....	32,0	47,2	2,1	18,0	33,0	48,1	3,3	17.43.17,67				17,65			17.43.50,32			B.
	B.A.C. 6059.....	44,0	58,9	14,1	29,1	44,3	58,9	14,2	17.46.29,07				29,05			17.47.1,73			B.
	H. C. 32847.....	36,1	50,8	5,0	20,0	34,6	49,0	3,3	17.49.19,82				19,81			17.49.52,49			B.
	H. C. 32940.....	21,3	36,3	51,1	6,0	21,0	35,3	50,2	17.52.5,89				5,88			17.52.38,56			B.
	B.A.C. 6108.....	....	28,1	42,8	58,1	13,0	27,8	42,6	17.54.57,94				57,93			17.55.30,61			B.
	(e) H. C. 33188.....	48,1	3,3	18,4	34,1	49,6	4,4	19,8	17.58.33,95				33,93			17.59.6,61			B.
	μ^1 Sagittarii .....	....	45,2	59,3	14,1	28,7	43,0	....	18.4.14,06				14,06	32,79		18.4.46,74			B.
	H. C. 33559.....	49,1	4,1	18,7	33,4	48,0	2,3	17,1	18.7.33,24				33,23			18.8.5,91			B.
	H. C. 33694.....	49,1	3,2	17,2	31,7	46,0	59,9	14,0	18.10.31,58				31,59			18.11.4,28			B.
	δ Ursæ Minoris ..	....	....	53,8	45,0	31,8	16,3	3,8	18.20.43,25				44,31						B.
	γ Aquilæ.....	53,8	7,3	20,9	34,8	48,3	2,1	15,9	19.38.34,73				34,75	32,67		19.39.7,47			B.
	α Aquilæ.....	13,9	27,8	40,9	54,8	8,4	22,0	35,7	19.42.54,79				54,81	32,67		19.43.27,54			B.
	β Aquilæ	42,8	56,3	9,7	23,6	37,3	50,6	4,0	19.47.23,47				23,49	32,82		19.47.56,22			B.
July 19	α Herculis.....	32,0	45,9	59,8	14,0	27,7	41,6	55,2	17.7.13,74				13,77	34,29	0,57				B.
	H. C. 31513.....	....	....	11,8	26,2	40,3	54,4	8,7	17.12.26,12				26,13			17.13.0,48			B.
	H. C. 31657.....	37,2	52,0	6,6	21,1	36,1	50,4	5,1	17.16.21,21				21,20			17.16.55,55			B.
	H. C. 31752.....	34,1	48,1	2,2	16,4	31,0	45,0	59,0	17.19.16,54				16,55			17.19.50,90			B.
	B.A.C. 5909.....	5,2	20,2	35,1	50,2	5,2	20,1	35,2	17.21.50,17				50,16			17.22.24,51			B.
	(f) α Ophiuchi.....	42,2	56,1	9,4	23,6	37,2	51,1	5,0	17.27.23,51				23,53	34,41					B.
July 21	α Ophiuchi.....	41,1	55,0	8,4	22,7	36,3	50,1	4,0	17.27.22,51		+0,8		22,53	35,40	0,61	17.27.58,01			B.
	(g) H. C. 32195.....	21,8	....	51,5	6,9	22,1	....	52,0	17.32.6,86				6,84			17.32.42,32			B.
	H. C. 32316.....	25,9	39,0	52,8	7,2	21,3	35,2	49,4	17.35.7,26				7,27			17.35.42,76			B.
	(c) H. C. 32424.....	22,1	36,7	51,0	5,9	20,2	35,0	49,2	17.38.5,73				5,72			17.38.41,21			B.
	H. C. 32493.....	....	....	52,2	7,1	22,1	37,1	51,3	17.40.6,90				6,88			17.40.42,37			B.
	H. C. 32632.....	14,7	28,5	42,6	56,9	11,2	25,0	39,1	17.43.56,86				56,87			17.44.32,36			B.
	(h) B.A.C. 6063.....	52,0	7,1	22,0	37,3	53,1	8,1	23,1	17.46.37,53				37,51			17.47.13,00			B.
	H. C. 32855.....	....	....	9,8	24,9	39,6	53,9	8,8	17.49.24,75				24,74			17.50.0,23			B.
	(i) H. C. 33058.....	49,0	3,0	17,8	32,2	47,1	1,2	15,9	17.54.32,31				32,30			17.55.7,80			B.
	B.A.C. 6125.....	51,8	6,2	20,8	35,2	49,9	4,2	18,8	17.57.35,27				35,27			17.58.10,77			B.
	H. C. 33272.....	37,2	51,3	6,2	21,2	36,1	50,3	5,2	18.0.21,07				21,06			18.0.56,56			B.
	μ^1 Sagittarii	28,2	42,4	56,8	11,3	25,8	40,2	54,7	18.4.11,34				11,34	35,51		18.4.46,84			B.
	(k) H. C. 33604.....	50,8	5,0	18,9	33,2	47,4	1,8	16,0	18.8.33,30				33,30			18.9.8,80			B.
	H. C. 33729.....	49,8	3,3	18,2	32,4	47,0	1,0	15,2	18.11.32,41				32,41			18.12.7,92			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40',362, - 26',877, - 13',616, + 0',065, + 13',537, + 26',890, + 40',362.

(a) Faint. (b) Flashing. (c) Unsteady. (d) 'An equal one of less N.P.D. precedes, and a fainter follows.' (e) 'One of less N.P.D. followed about 10s.' (f) 'Hardly visible at times from cloud.' (g) Very faint and unsteady. (h) The last three wires have been corrected by - 30s. (i) 'The brightest of several.' (k) 'One of greater N.P.D. precedes.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"		s.	s.	s.	h.	m.	s.
July 21	(a) H. C. 33855.....	57,6	12,2	27,4	42,9	57,8	12,4	27,0	18.14.42,47	+0,1	+0,8	-0,5	42,45		0,61	18.15.17,96			B.
	(b) B.A.C. 6264.....	22,9	38,1	52,8	8,2	23,1	38,1	53,1	18.18.8,05				8,03			18.18.43,54			B.
	H. C. 34157.....	41,0	55,2	10,0	24,4	39,0	53,2	7,8	18.21.24,37				24,37			18.21.59,88			B.
	24 Sagittarii.....	23,2	38,0	52,4	7,4	22,0	37,1	51,2	18.24.7,33				7,32			18.24.42,83			B.
	(c) H. C. 34378.....	....	21,8	....	53,0	8,0	23,1	38,1	18.26.52,75				52,73			18.27.28,24			B.
	H. C. 34668.....	27,0	41,2	55,0	9,3	23,8	37,5	51,7	18.34.9,36				9,35			18.34.44,87			B.
	28 Sagittarii.....	....	....	27,0	41,5	56,1	10,7	25,2	18.36.41,54				41,53			18.37.17,05			B.
	H. C. 34898.....	58,8	13,2	28,1	....	58,2	13,1	27,2	18.39.43,11				43,10			18.40.18,62			B.
	β Lyræ.....	9,1	25,1	40,9	57,3	13,3	29,3	45,4	18.43.57,20				57,25	35,76		18.44.32,77			B.
	ϵ Sagittarii.....	38,0	51,8	6,0	20,0	34,1	48,1	2,0	19.33.20,00				20,00			19.33.55,54			B.
	γ Aquilæ.....	50,9	4,8	18,1	32,1	46,1	59,3	13,0	19.38.32,04				32,06	35,40		19.39.7,60			B.
	α Aquilæ.....	....	25,1	38,3	52,3	5,7	19,3	33,2	19.42.52,18				52,19	35,34		19.43.27,73			B.
	β Aquilæ.....	40,2	53,3	6,9	20,8	34,2	47,9	1,2	19.47.20,64				20,65	35,71		19.47.56,19			B.
July 23	α Herculis.....	29,8	43,8	57,4	11,5	25,7	39,6	53,4	17.7.11,60				11,62	36,41	0,59	17.7.48,14			T.
	H. C. 31752.....	32,2	46,0	0,3	14,4	28,9	42,9	56,9	17.19.14,51				14,51			17.19.51,03			T.
	B.A.C. 5920.....	56,0	10,1	24,0	38,3	52,6	6,5	20,5	17.23.38,29				38,30			17.24.14,83			T.
	α Ophiuchi.....	40,1	53,8	7,5	21,4	35,3	48,9	2,8	17.27.21,40				21,42	36,50		17.27.57,95			T.
	H. C. 32271.....	....	30,1	43,8	58,0	12,2	26,3	....	17.33.58,08				58,08			17.34.34,61			T.
	(d) H. C. 32369.....	....	5,0	19,2	34,0	48,3	3,0	....	17.36.33,90				33,90			17.37.10,43			T.
	H. C. 32471.....	52,1	6,5	21,1	36,0	51,0	5,3	20,0	17.39.36,00				35,99			17.40.12,52			T.
	(e) B.A.C. 6044.....	....	2,0	16,9	32,5	47,1	2,4	....	17.43.32,18				32,16			17.44.8,69			T.
	H. C. 32742.....	1,1	15,1	30,0	44,8	59,4	14,1	28,6	17.46.44,73				44,72			17.47.21,26			T.
	H. C. 32865.....	1,4	15,9	30,2	45,2	59,8	14,1	28,4	17.49.45,00				44,99			17.50.21,53			T.
	H. C. 32971. <i>nf</i>	56,2	10,7	25,1	40,0	54,9	9,3	23,9	17.52.40,01				40,00			17.53.16,54			T.
	H. C. 33111.....	....	34,4	48,3	3,2	17,5	31,7	....	17.56.3,02				3,02			17.56.39,56			T.
	B.A.C. 6133.....	18,1	32,4	46,6	1,4	16,0	30,4	44,8	17.59.1,38				1,38			17.59.37,92			T.
	(f) B.A.C. 6158.....	....	15,3	29,6	44,1	58,6	12,4	27,2	18.1.44,05				44,05			18.2.20,59			T.
	14 Sagittarii.....	....	....	23,2	38,0	52,4	6,9	21,2	18.4.37,86				37,86			18.5.14,41			T.
	H. C. 33564.....	48,7	3,0	17,0	31,3	45,9	59,9	14,1	18.7.31,41				31,41			18.8.7,96			T.
	H. C. 33694.....	45,2	59,5	13,3	27,5	41,9	56,1	10,0	18.10.27,65				27,66			18.11.4,21			T.
	H. C. 33812.....	48,3	2,4	16,2	30,8	45,1	58,9	13,0	18.13.30,67				30,67			18.14.7,22			T.
	H. C. 33917.....	....	35,0	49,1	3,9	18,3	32,4	....	18.16.3,74				3,74			18.16.40,29			T.
	B.A.C. 6267.....	....	5,9	19,6	34,2	48,4	2,4	....	18.18.34,10				34,10			18.19.10,65			T.
	H. C. 34152.....	26,8	41,7	56,3	11,4	26,2	40,9	55,4	18.21.11,24				11,23			18.21.47,78			T.
	β Lyræ.....	8,2	24,2	40,1	56,3	12,3	28,6	44,4	18.43.56,30				56,35	36,65		18.44.32,91			T.
	ζ Aquilæ.....	12,8	26,4	40,1	54,3	8,2	21,9	35,5	18.57.54,17				54,19	36,60		18.58.30,76			T.
July 24	α Herculis.....	29,3	43,2	56,9	10,9	25,0	38,6	52,4	17.7.10,90				10,92	37,10		17.7.48,01			T.
	α Ophiuchi.....	39,6	53,3	7,0	21,0	34,6	48,4	2,1	17.27.20,85				20,87	37,04		17.27.57,97			T.
	(g) β Lyræ.....	7,4	23,5	39,5	55,9	12,1	27,9	44,0	18.43.55,76				55,81	37,19		18.44.32,94			T.
July 27	α Aquarii.....	44,1	57,7	11,2	24,8	38,2	51,7	5,2	21.57.24,70			+0,9	24,79	39,32	0,70				B.
	(h) Neptune.....	1,0	14,3	27,9	42,0	55,7	9,1	23,1	22.24.41,87				41,96			22.25.21,32			B.
	(i) Metis.....	0,0	14,2	28,4	42,1	56,3	9,9	....	22.39.42,21				42,31			22.40.21,68			B.
	α Pegasi.....	56,0	9,8	23,4	37,6	51,8	5,2	19,1	22.56.37,66				37,64	39,37					B.
July 30	β Aquarii.....	17,1	30,4	43,9	57,3	11,2	24,9	38,2	21.22.57,57			+0,6	57,65	41,41	0,81				T.
	(k) α Aquarii.....	42,5	55,8	9,1	23,0	36,4	49,6	3,1	21.57.22,78				22,86	41,30					T.
July 31	H. C. 32602.....	12,1	26,1	40,0	54,3	8,8	22,9	36,9	17.42.54,44				54,53		0,78	17.43.36,59			T.
	B.A.C. 6059.....	....	49,4	4,2	19,9	34,8	49,8	....	17.46.19,62				19,70			17.47.1,76			T.
	H. C. 32847.....	....	....	55,9	10,1	25,0	39,3	54,0	17.49.10,31				10,39			17.49.52,45			T.
	H. C. 32937.....	....	....	26,3	40,8	55,1	9,0	23,1	17.51.40,69				40,78			17.52.22,84			T.
	H. C. 33074.....	12,6	26,8	40,4	55,0	9,2	23,1	37,0	17.54.54,87				54,96			17.55.37,02			T.
	B.A.C. 6132.....	10,0	24,8	39,7	54,8	9,8	24,3	39,5	17.58.54,70				54,78			17.59.36,84			T.
	(l) μ^1 Sagittarii.....	21,2	35,8	50,1	4,9	19,2	33,1	47,9	18.4.4,60				4,69	42,13		18.4.46,76			T.
	(m) H. C. 33748.....	....	....	36,4	50,8	5,0	....	....	18.11.50,73				50,82			18.12.32,89			T.
	(n) H. C. 33885.....	35,1	50,2	5,1	19,9	34,5	49,1	3,9	18.15.19,69				19,77			18.16.1,85			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°362, -26°877, -13°616, +0°065, +13°537, +26°890, +40°362.

(a) 'Two of less N.P.D. precede.' (b) 'A brighter of greater N.P.D. precedes.' (c) Cloudy. (d) This is Argelander Zone 224, No. 8.
 (e) Taken hurriedly. The intervals are irregular. (f) Corrected by -1". The observer noted the error at the time. (g) Very faint from cloud.
 (h) 'Very good.' (i) 'Another object of nearly the same magnitude and R.A. and of less N.P.D.' The noted times have been diminished by 1". (k) Thick cloud.
 (l) Clouds passing. (m) Hid by clouds, and near the moon. (n) Very faint.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		"	"	"	"	"	"	"		"	"	"				"	"	"	
July 31	(a) B.A.C. 6267..... δ Ursæ Minoris... γ Aquilæ..... α Aquilæ..... β Aquilæ..... B.A.C. 6880..... H. C. 38339..... (b) H. C. 38462..... H. C. 38618..... α ² Capricorni..... β Aquarii..... α Aquarii..... Neptune..... Metis.....	45,3 44,3 4,5 33,6 39,1 55,2 16,0 41,6 36,8 46,0	0,2 58,2 18,2 47,2 53,0 9,9 29,4 54,9 50,1 0,1	14,0 11,5 31,4 0,7 6,7 25,2 24,3 49,2 43,0 8,1 4,0 14,0	28,4 25,4 45,4 14,4 20,8 39,4 38,0 4,1 56,7 22,0 17,8 28,3	..... 20,0 39,2 59,2 34,9 53,9 51,9 19,0 10,2 35,2 31,7 43,1	..... 4,3 52,7 12,4 41,4 48,6 8,1 6,0 34,0 28,5 23,8 48,8 2,1 45,1 56,8	..... 53,0 6,3 26,1 54,9 2,8 22,2 19,6 48,8 42,3 37,0 2,1 59,0 10,9	18. 18. 28,21 18. 20. 31,27 19. 38. 25,37 19. 42. 45,31 19. 47. 14,30 19. 54. 20,84 19. 56. 39,53 19. 59. 37,84 20. 3. 4,15 20. 9. 0,94 21. 22. 56,59 21. 57. 21,81 22. 24. 17,79 22. 37. 28,46	+0,1	+0,6	+0,9	28,30 31,17 25,44 45,38 14,37 20,92 39,62 37,92 4,23 1,02 56,67 21,89 17,87 28,55	..... ..... 42,06 42,19 42,03 42,14 42,40 42,28	0,78	18. 19. 10,38 19. 39. 7,56 19. 43. 27,50 19. 47. 56,49 19. 55. 3,05 19. 57. 21,75 20. 0. 20,05 20. 3. 46,36 20. 9. 43,16 22. 25. 0,24 22. 38. 10,92	T. T. T. T. T. T. T. T. T. T. B. B. B. B.
Aug. 1	α Herculis.....	23,4	37,4	51,1	5,2	19,2	32,9	46,8	17. 7. 5,14	.....	.....	.....	5,21	42,74	0,71	.....	T.
Aug. 3	(c) H. C. 33682..... (d) H. C. 33817..... (e) δ Ursæ Minoris... (f) H. C. 34787..... H. C. 34930..... H. C. 35053..... H. C. 35168..... B.A.C. 6467..... H. C. 35411..... B.A.C. 6505..... ζ Aquilæ..... H. C. 35843..... H. C. 35991..... (c) H. C. 36117..... B.A.C. 6607..... H. C. 36448..... H. C. 36585..... H. C. 36786..... H. C. 36911..... h ¹ Sagittarii..... (g) 53 Sagittarii..... (h) γ Aquilæ..... (h) α Aquilæ..... (h) (i) β Aquilæ..... H. C. 38104..... H. C. 38216..... H. C. 38339..... H. C. 38462..... H. C. 38618..... α ² Capricorni..... β Aquarii..... α Aquarii..... (k) Neptune..... Metis.....	13,3 27,3 27,3 50,1 48,9 3,8 4,9 23,1 10,1 48,2 54,3 25,4 19,3 42,1 2,3 31,4 4,9 54,5 54,0 17,6 14,2 39,4 18,1 50,3	27,6 41,9 42,0 4,8 3,1 48,1 18,4 19,0 37,3 24,3 22,2 24,6 3,4 48,2 8,9 40,3 34,1 55,7 15,9 45,1 46,0 19,4 9,2 7,8 32,3 31,4 27,6 53,0 32,0 4,6	41,8 56,3 55,8 19,0 17,3 2,3 33,2 32,6 52,2 38,3 38,1 39,1 17,7 2,2 23,0 53,1 55,1 48,5 9,4 29,4 58,3 59,7 34,0 23,2 21,8 47,0 45,0 41,2 53,0 45,4 4,6	56,3 38,9 30,8 11,0 10,1 33,4 32,0 16,4 30,7 48,2 46,5 7,2 52,9 38,1 54,1 32,2 16,9 37,6 7,2 10,1 3,4 23,4 43,2 12,6 14,1 49,0 3,5 52,0 50,0 17,1 13,1 8,4 20,0 13,1 47,0	10,9 53,3 18,5 25,2 24,1 47,9 46,4 30,7 44,4 3,4 0,6 22,1 7,2 53,3 8,5 0,9 6,1 21,2 25,1 18,2 36,9 45,6 52,0 35,1 39,7 18,2 50,6 10,2 39,3 42,0 18,0 5,9 4,0 31,9 26,5 21,9 33,6 26,8 0,9	24,9 7,5 4,0 40,1 38,0 2,0 0,4 59,0 44,4 18,0 14,2 51,8 9,1 23,0 49,0 54,9 47,6 4,3 24,1 52,7 50,1 20,1 17,5 40,2 35,2 0,3 40,3 15,4	18. 9. 56,27 18. 13. 38,79 18. 20. 29,60 18. 37. 10,87 18. 40. 9,92 18. 42. 51,61 18. 45. 33,40 18. 48. 31,87 18. 51. 16,43 18. 54. 48,30 18. 57. 46,56 19. 1. 7,20 19. 3. 52,78 19. 6. 38,01 19. 10. 53,81 19. 13. 32,22 19. 16. 16,85 19. 20. 37,47 19. 23. 7,12 19. 26. 10,08 19. 30. 3,44 19. 38. 23,20 19. 42. 43,17 19. 47. 12,26 19. 51. 14,00 19. 53. 48,82 19. 56. 37,45 19. 59. 35,87 20. 3. 2,10 20. 8. 58,99 21. 22. 54,76 21. 57. 19,95 22. 23. 59,29 22. 35. 32,76	-0,4										

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40°,362, - 26°,877, - 13°,616, + 0°,065, + 13°,537, + 26°,890, + 40°,362.

(a) Cloudy. The noted time was 1^m greater. (b) 'Counting 1^s slow.' All except wires I and II have been increased 1^s. (c) Too faint for certainty.
 (d) Cloudy. (e) Unsteady. (f) 'A bright star of greater N.P.D. preceded.' (g) 'Rather brighter than a following star.' The second star is B.A.C. 6727.
 (h) The stars this night were badly defined and unsteady. (i) 'Counting 1^s fast.' Wires VI and VII have been diminished 1^s.
 (k) 'Very good.' (l) 'An equal star of less N.P.D. followed.' (m) 'The southern of two.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"		s.	s.	s.	h.	m.	s.
Aug. 4	17 Sagittarii.....	10,3	24,9	39,0	53,8	8,1	22,3	36,7	18. 6. 53,58	-0,4	+0,7	+0,9	53,64		0,70	18. 7. 38,44			T.
	(a) H. C. 33817.....	54,9	9,1	23,3	38,0	52,3	6,9	21,2	18. 13. 37,96				38,02			18. 14. 22,82			T.
	H. C. 33957.....	4,2	19,1	33,3	48,4	3,2	17,9	32,2	18. 16. 48,33				48,33			18. 17. 33,18			T.
	H. C. 34117.....	25,1	39,3	53,7	8,3	22,9	37,0	51,3	18. 20. 8,23				8,29			18. 20. 53,09			T.
	H. C. 34229.....	....	28,1	42,3	57,2	11,9	26,3	....	18. 22. 57,16				57,21			18. 23. 42,02			T.
	(b) H. C. 34339.....	58,3	12,3	26,2	40,4	54,8	8,8	22,9	18. 25. 40,52				40,58			18. 26. 25,39			T.
	B.A.C. 6340.....	....	55,1	9,0	23,3	37,6	51,5	....	18. 28. 23,30				23,36			18. 29. 8,17			T.
	H. C. 34627.....	18,4	33,3	47,9	2,9	17,4	32,2	46,9	18. 33. 2,71				2,76			18. 33. 47,57			T.
	(c)(d) B.A.C. 6374 .....	....	23,2	38,4	53,9	9,1	24,1	....	18. 35. 53,74				53,79			18. 36. 38,60			T.
	(c)(e) H. C. 34884 .....	....	44,1	58,0	12,3	26,4	40,0	....	18. 39. 12,16				12,22			18. 39. 57,03			T.
	β Lyrae	59,5	15,7	31,7	47,9	4,1	20,0	36,2	18. 43. 47,87				47,90	45,02		18. 44. 32,71			T.
	H. C. 35240.....	33,3	48,2	2,1	16,5	30,3	44,9	58,5	18. 47. 16,26				16,32			18. 48. 1,14			T.
	H. C. 35355.....	....	....	36,2	51,2	5,9	20,0	24,3	18. 49. 51,01				51,06			18. 50. 35,88			T.
	(f) H. C. 35497.....	46,3	0,9	15,0	29,3	43,7	57,9	12,1	18. 53. 29,32				29,38			18. 54. 14,20			T.
	H. C. 35635.....	39,5	53,9	7,9	22,4	37,1	51,2	5,3	18. 56. 22,47				22,53			18. 57. 7,35			T.
	B.A.C. 6544.....	28,3	42,5	56,6	11,1	25,5	39,5	53,6	18. 59. 11,01				11,07			18. 59. 55,89			T.
	H. C. 35902.....	30,7	45,1	59,5	14,1	28,4	43,0	57,2	19. 2. 14,00				14,06			19. 2. 58,88			T.
	B.A.C. 6576.....	55,0	9,4	24,2	39,2	54,1	8,9	23,5	19. 5. 39,19				39,24			19. 6. 24,07			T.
	H. C. 36288.....	....	30,2	44,7	59,9	14,3	28,8	....	19. 9. 59,58				59,63			19. 10. 44,46			T.
	B.A.C. 6628.....	37,4	52,8	8,1	23,3	38,7	54,1	9,3	19. 14. 23,38				23,43			19. 15. 8,26			T.
	(g) H. C. 36657.....	15,0	29,4	43,9	58,1	12,9	26,9	41,3	19. 17. 58,22				58,28			19. 18. 43,11			T.
	(h) B.A.C. 6671.....	30,9	45,2	59,7	14,1	28,9	43,2	57,4	19. 21. 14,20				14,26			19. 21. 59,09			T.
	(i) H. C. 36976.....	10,2	24,8	38,7	53,0	6,9	20,9	35,1	19. 24. 52,80				52,85			19. 25. 37,69			T.
	(k) H. C. 37204. <i>nf.</i> ...	7,9	21,7	35,6	50,1	4,1	18,0	32,1	19. 29. 49,92				49,98			19. 30. 34,82			T.
	ε Sagittarii	28,7	42,7	56,4	10,8	25,0	38,9	53,0	19. 33. 10,78				10,83			19. 33. 55,67			T.
	(d) γ Aquilæ	41,8	55,2	9,0	22,9	36,4	49,9	3,4	19. 38. 22,65				22,69	44,81		19. 39. 7,53			T.
	α Aquilæ	2,0	15,4	28,9	42,8	56,3	9,9	23,8	19. 42. 42,73				42,77	44,80		19. 43. 27,61			T.
	β Aquilæ	31,0	44,5	57,9	11,5	25,4	38,7	52,1	19. 47. 11,58				11,62	44,79		19. 47. 56,47			T.
	β Aquarii.....	....	26,9	40,3	54,2	8,0	21,2	....	21. 22. 54,12				54,17	44,94		21. 23. 39,06			T.
	α Aquarii.....	39,1	52,4	5,7	19,4	32,9	46,2	59,4	21. 57. 19,30				19,35	44,88		21. 58. 4,26			T.
	(m) Neptune.....	12,0	25,3	39,1	53,1	7,0	20,3	34,1	22. 23. 52,98				53,03			22. 24. 37,95			T.
Aug. 6	α Ophiuchi	30,1	44,1	57,5	11,8	25,5	39,1	53,0	17. 27. 11,58			-2,0	11,49	46,30	0,81	17. 27. 57,76			T.
	δ Ursæ Minoris...	....	51,5	35,0	26,0	14,7	59,0	....	18. 20. 25,54				26,51						T.
	(n) H. C. 34572.....	51,2	6,2	....	36,5	51,9	7,0	21,9	18. 31. 36,56				36,39			18. 32. 22,69			T.
	H. C. 34690.....	11,1	25,3	39,7	54,4	8,9	23,2	37,4	18. 34. 54,28				54,14			18. 35. 40,45			T.
	(n) B.A.C. 6396.....	42,3	57,3	12,4	27,9	43,3	58,0	13,2	18. 39. 27,77				27,60			18. 40. 13,91			T.
	H. C. 35049.....	....	21,8	36,7	52,0	7,0	....	37,1	18. 42. 51,91				51,74			18. 43. 38,05			T.
	ξ Sagittarii.....	55,7	10,0	24,2	38,9	53,4	7,6	22,0	18. 47. 38,83				38,69			18. 48. 25,00			T.
	H. C. 35374.....	....	....	2,2	16,9	31,0	45,0	59,2	18. 50. 16,67				16,54			18. 51. 2,85			T.
	H. C. 35497.....	45,0	59,3	13,3	27,9	42,2	56,2	10,5	18. 53. 27,77				27,63			18. 54. 13,95			T.
	ζ Aquilæ	3,0	17,0	30,4	44,7	58,5	12,2	26,1	18. 57. 44,56				44,47	46,29		18. 58. 30,79			T.
	H. C. 36501.....	40,1	54,1	8,0	22,3	36,3	50,3	4,2	19. 14. 22,18				22,05			19. 15. 3,38			T.
	(a) H. C. 36618.....	....	36,1	50,4	5,3	20,2	35,1	....	19. 17. 5,42				5,26			19. 17. 51,59			T.
	H. C. 36777.....	45,3	59,4	14,0	28,4	42,8	56,9	11,0	19. 20. 28,26				28,12			19. 21. 14,45			T.
	H. C. 36976.....	9,5	23,4	37,2	51,7	5,5	19,4	33,6	19. 24. 51,47				51,33			19. 25. 37,66			T.
	(p) B.A.C. 6710.....	51,6	5,6	19,8	34,2	48,3	2,5	16,8	19. 27. 34,11				33,98			19. 28. 20,32			T.
	(p)(q) B.A.C. 6727...	35,1	49,6	4,2	19,0	33,9	48,3	3,2	19. 30. 19,05				18,89			19. 31. 5,23			T.
	(p) H. C. 37336.....	....	16,2	30,9	45,9	0,4	15,6	....	19. 32. 45,80				45,64			19. 33. 31,98			T.
	α Aquilæ	0,3	14,2	27,3	41,3	55,2	8,4	22,2	19. 42. 41,27				41,17	46,40		19. 43. 27,57			T.
	β Aquilæ	29,5	43,2	56,4	10,1	24,0	37,1	50,8	19. 47. 10,15				10,05	46,36		19. 47. 56,40			T.
	α Aquarii.....	37,4	51,0	4,5	18,1	31,5	45,0	58,4	21. 57. 17,99				17,88	46,37		21. 58. 17,88			T.
Aug. 8	δ Ursæ Minoris...	0,6	47,0	32,3	23,0	11,2	54,0	42,0	18. 20. 21,44				22,71		0,91				T.
	(r) β Lyrae .....	....	....	28,3	44,9	1,1	16,6	33,0	18. 43. 44,71				44,67	48,22		18. 44. 32,72			T.
	ζ Aquilæ.....	1,3	15,1	29,0	42,9	57,0	10,5	24,4	18. 57. 42,88				42,79	47,96		18. 58. 30,84			T.
	γ Aquilæ	38,4	52,1	5,8	19,6	33,2	46,9	0,4	19. 38. 19,49				19,40	48,09		19. 39. 7,48			T.
	α Aquilæ	58,9	12,2	26,0	39,6	53,2	6,9	20,3	19. 42. 39,59				39,49	48,08		19. 43. 27,58			T.
	β Aquilæ	28,1	41,4	54,8	8,6	22,2	35,4	49,0	19. 47. 8,50				8,40	48,01		19. 47. 56,49			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,362, -26°,877, -13°,616, +0°,065, +13°,537, +26°,890 +40°,362.

(a) Cloudy at the last wires. (b) This is Argelander Z. 218. No. 85. (c) The counting was found to be 1^s in advance. (d) All the wires have been diminished 1^s. (e) Wire VI has been diminished 1^s. (f) Corrected by +1^s, the counting being 1^s slow. (g) The counting was 1^s in advance of the clock: correction applied accordingly. (h) 'A fainter followed.' (i) 'The second of three of equal magnitude.' (j) 'The other star is H. C. 37202.' (k) 'Unsteady.' (l) 'Faint from a thick fog.' (m) 'Extremely faint.' (n) 'Counting 1^s slow: correction applied.' (o) 'Dense atmosphere towards the South.' (p) 'One nearly equal precedes.' (q) 'Thick cloud.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"				h. m. s.	h. m. s.	h. m. s.	
Aug. 8	β Aquarii.....	10,5	24,0	37,4	51,1	4,8	18,2	31,6	21.22.51,08	-0,4	+0,7	-2,0	50,96	48,19	0,91	21.23.39,11			T.
	α Aquarii.....	35,9	49,2	2,5	16,2	30,0	43,2	56,6	21.57.16,23				16,12	48,16		21.58.4,29			T.
	(a)(b) Neptune.....	59,7	13,1	27,1	41,0	54,4	8,0	22.23.27,03				26,90				22.24.15,09			T.
	(c) Metis.....	22,1	36,4	51,1	5,6	19,5	33,8	22.31.50,97				50,83				22.32.39,03			T.
Aug. 9	γ Aquilæ.....	37,5	51,1	4,7	18,3	32,4	45,8	59,4	19.38.18,46				18,37	49,12	1,01	19.39.7,39			T.
	α Aquilæ.....	57,8	11,3	24,8	38,6	52,3	5,8	19,2	19.42.38,55				38,45	49,12		19.43.27,47			T.
	(d) β Aquilæ.....	54,0	7,4	21,4	34,8	48,2	19,47	7,63	19.47.7,63				7,53	48,88		19.47.56,56			T.
	α Aquarii.....	35,1	48,4	1,7	15,5	28,9	42,2	55,7	21.57.15,36				15,25	49,04		21.58.4,36			T.
	Neptune.....	39,2	53,0	6,1	20,3	33,9	47,4	1,1	22.23.20,14				20,02			22.24.9,15			T.
	Metis.....	20,9	34,5	49,0	2,4	17,0	31,2	....	22.31.2,95				2,81			22.31.51,95			T.
Aug. 10	(e) δ Ursæ Minoris...	....	....	....	20,8	9,7	54,2	....	18.20.20,41			-1,2	21,17		1,05				T.
	β Aquarii.....	8,6	22,1	35,4	49,0	2,6	16,1	29,7	21.22.49,07				49,00	50,17					T.
	(f) α Aquarii.....	33,9	47,3	0,7	14,2	27,8	41,1	54,4	21.57.14,20				14,14	50,16					T.
Aug. 13	(g) μ^1 Sagittarii.....	10,3	25,1	39,1	53,8	8,2	22,6	37,0	18.3.53,73			+0,4	53,62	53,10	0,60	18.4.46,70			T.
	δ Ursæ Minoris...	55,8	42,5	....	17,0	4,8	50,3	35,5	18.20.16,01				16,49						T.
	H. C. 33885.....	25,0	39,5	53,9	8,9	23,5	38,1	52,3	18.15.8,75				8,64			18.16.1,72			T.
	(h) B.A.C. 6299.....	41,0	55,0	9,3	23,9	38,0	....	18.22.9,44				9,35				18.23.2,44			T.
	(i) H. C. 34532.....	29,4	43,9	58,3	12,9	28,0	42,1	56,6	18.30.13,03				12,92			18.31.6,01			T.
	B.A.C. 6369.....	57,7	12,7	27,3	42,6	57,4	12,1	27,0	18.34.42,40				42,29			18.35.35,38			T.
	β Lyrae.....	51,4	7,4	23,2	39,8	55,9	11,9	27,8	18.43.39,63				39,59	53,24		18.44.32,69			T.
	ζ Aquilæ.....	56,3	10,1	23,8	37,6	51,8	5,4	19,1	18.57.37,73				37,66	53,05		18.58.30,76			T.
	γ Aquilæ.....	33,4	47,2	0,7	14,5	28,2	41,6	55,4	19.38.14,43				14,36	53,11		19.39.7,48			T.
	α Aquilæ.....	53,9	7,3	20,8	34,6	48,2	1,8	15,3	19.42.34,56				34,49	53,06		19.43.27,61			T.
	B.A.C. 6831.....	5,3	20,0	34,7	49,2	4,1	18,4	33,2	19.46.49,28				49,17			19.47.42,29			T.
	B.A.C. 6850.....	....	32,2	47,0	1,5	16,1	30,6	19.49.46,92				46,81				19.50.39,93			T.
	H. C. 38192.....	26,4	40,6	54,1	8,3	22,3	36,4	50,3	19.53.8,35				8,25			19.54.1,37			T.
	H. C. 38334.....	40,4	54,3	8,9	22,9	37,1	50,8	4,9	19.56.22,76				22,66			19.57.15,78			T.
	(d) H. C. 38462.....	45,1	58,9	12,9	27,0	41,1	....	....	19.59.26,99				26,90			20.0.20,03			T.
	(d) β Aquarii.....	5,5	18,8	32,5	46,1	59,9	13,0	26,5	21.22.46,04				45,96	53,22		21.23.39,12			T.
	α Aquarii.....	31,1	44,3	57,9	11,4	24,9	38,1	51,7	21.57.11,34				11,26	53,07		21.58.4,44			T.
	(k) Metis.....	....	....	23,0	38,0	....	....	....	22.27.37,69				37,60			22.28.30,79			T.
Aug. 14	ζ Aquilæ.....	55,2	9,5	23,3	37,2	51,3	4,8	18,7	18.57.37,14				37,07	53,64	0,59				T.
Aug. 15	(l) α Aquarii.....	29,8	43,4	56,6	10,2	23,8	37,2	50,5	21.57.10,21				10,13	54,21	0,65				T.
	(m) Neptune.....	....	....	....	39,3	53,0	6,5	20,3	22.22.39,20				39,11			22.23.33,33			T.
Aug. 16	H. C. 34930.....	....	....	45,1	59,6	13,5	27,3	41,3	18.39.59,29				59,20		0,64	18.40.53,97			T.
	H. C. 35098.....	18,4	32,6	46,8	1,2	15,8	29,9	44,2	18.44.1,27				1,18			18.44.55,95			T.
	H. C. 35224.....	....	15,0	29,5	44,3	59,2	13,8	28,2	18.46.44,34				44,23			18.47.39,00			T.
	H. C. 35355.....	57,3	12,1	26,3	41,2	55,5	10,0	24,4	18.49.40,97				40,86			18.50.35,63			T.
	H. C. 35459.....	....	45,0	58,9	13,2	27,0	41,2	55,2	18.52.13,02				12,93			18.53.7,70			T.
	H. C. 35592.....	32,3	46,3	0,2	14,8	29,0	42,9	56,9	18.55.14,63				14,54			18.56.9,31			T.
	B.A.C. 6532.....	7,9	23,2	38,1	53,2	8,8	23,8	38,9	18.57.53,41				53,30			18.58.48,07			T.
	H. C. 35843.....	12,0	26,9	41,2	56,4	11,2	26,0	40,9	19.0.56,37				56,26			19.1.51,04			T.
	B.A.C. 6565.....	57,2	12,2	27,0	42,3	57,8	12,6	27,8	19.3.42,41				42,30			19.4.37,08			T.
	H. C. 36128.....	....	0,2	14,1	28,8	43,0	57,3	....	19.6.28,68				28,59			19.7.23,37			T.
	(n) H. C. 36259.....	19,4	33,7	48,0	2,4	16,8	31,0	45,2	19.9.2,35				2,26			19.9.57,04			T.
	(o) B.A.C. 6611.....	....	....	18,9	34,2	49,3	4,0	19,1	19.11.34,08				33,97			19.12.28,77			T.
	χ^1 Sagittarii.....	....	43,3	58,1	13,2	28,1	42,8	....	19.15.13,10				12,99			19.16.7,77			T.
	B.A.C. 6658.....	....	57,9	11,6	26,2	40,4	54,8	....	19.18.26,18				26,09			19.19.20,87			T.
	(p) H. C. 36810.....	19,4	33,7	47,8	2,4	16,7	30,6	44,8	19.21.2,20				2,11			19.21.56,90			T.
	H. C. 36947.....	21,8	36,2	50,3	4,8	19,0	33,0	47,3	19.24.4,63				4,54			19.24.59,33			T.
	h^2 Sagittarii.....	....	9,1	23,9	39,1	53,9	8,7	....	19.26.38,94				38,83			19.27.33,62			T.
	H. C. 37204. <i>nf</i> ...	57,6	11,4	25,7	40,0	54,2	8,0	22,2	19.29.39,87				39,78			19.30.34,57			T.
	(q) H. C. 37306.....	....	....	48,4	3,1	17,5	32,0	46,3	19.32.3,04				2,95			19.32.57,74			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^s,362$, $-26^s,877$, $-13^s,616$, $+0^s,065$, $+13^s,537$, $+26^s,890$, $+40^s,362$.

(a) Thick cloud. (b) Extremely faint. (c) The counting being 1^s fast, wires VI and VII have been corrected by -1^s . (d) Cloudy. (e) Much clouded: hid at the other wires. (f) The temperature Aug. 9 and 10 at 9^h was 62°. (g) Lower temperature. (h) 'Followed by one of equal magnitude and the same N.P.D.: several other objects in the field.' (i) Faint. (k) Visible at two wires only between dense cloud. (l) Very faint from cloud. (m) Not seen before, being much obscured by cloud. (n) 'Followed a brighter of less N.P.D.' (o) Too close after the preceding. (p) Counting 10^s slow: the last four wires have been corrected accordingly. (q) Not seen before.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
Aug. 16	H. C. 37447.....	14,4	28,5	42,3	56,9	11,0	25,1	39,2	19.34.56,77	-0,4	+0,4	-1,2	56,68		0,64	19.35.51,47		T.	
	γ Aquilæ.....	31,6	45,3	59,0	12,9	26,6	40,1	53,8	19.38.12,76				12,69	54,77		19.39.7,48		T.	
	α Aquilæ.....	52,2	5,8	19,2	33,0	46,6	0,0	13,6	19.42.32,91				32,84	54,69		19.43.27,64		T.	
	β Aquilæ.....	21,1	34,6	48,1	1,8	15,3	28,7	42,2	19.47.1,63				1,60	54,78		19.47.56,40		T.	
	H. C. 38081.....	55,3	10,1	24,2	38,8	53,3	7,8	22,0	19.50.38,79				38,70			19.51.33,50		T.	
	H. C. 38192.....	24,4	38,6	52,4	6,8	20,8	34,8	48,8	19.53.6,66				6,56			19.54.1,36		T.	
	H. C. 38314.....	12,0	26,0	40,0	54,2	8,2	22,1	36,2	19.55.54,10				54,00			19.56.48,80		T.	
	H. C. 38434.....	0,0	14,8	29,2	44,2	59,2	13,9	28,2	19.58.44,21				44,10			19.59.38,90		T.	
	H. C. 38740.....	24,0	38,1	52,2	6,8	21,3	35,5	49,8	20.5.6,82				6,73			20.6.1,54		T.	
	α^2 Capricorni.....	7,0	20,7	34,4	48,6	2,4	16,1	29,8	20.8.48,43				48,34	54,85		20.9.43,15		T.	
	H. C. 39031.....	56,8	11,4	26,0	40,8	55,9	10,2	25,1	20.11.40,88				40,77			20.12.35,58		T.	
	β Aquarii.....			30,6	44,2	58,2	11,3	24,9	21.22.44,31				44,23	54,97		21.23.39,07		T.	
	α Aquarii.....	29,2	42,7	56,1	9,6	23,1	36,4	50,0	21.57.9,59				9,51	54,84		21.58.4,37		T.	
	Neptune.....	51,3	5,0	18,5	32,6	46,3	0,1	13,4	22.22.32,46				32,37			22.23.27,24		T.	
(a) Metis.....					10,3	24,2	38,0	22.24.55,54				55,45			22.25.50,32		T.		
Aug. 17	(b) ζ Aquilæ.....	53,8	7,5	21,3	35,4	49,2	3,2	17,0	18.57.35,34				55,27	55,41	0,60	18.58.30,71		T.	
	H. C. 36501.....		45,0	58,7	13,2	27,2	41,2		19.14.13,06				12,97			19.15.8,39		T.	
	H. C. 36613.....		16,2	30,8	45,1	59,5	14,0		19.16.45,12				45,03			19.17.40,45		T.	
	H. C. 36828.....		47,2	1,1	15,2	29,4	43,2		19.21.15,22				15,12			19.22.10,54		T.	
	H. C. 36941.....	12,0	26,2	40,0	54,3	8,8	23,1	37,2	19.23.54,51				54,42			19.24.49,84		T.	
	B.A.C. 6707.....	2,8	16,9	30,8	45,5	59,8	13,9	28,1	19.26.45,40				45,31			19.27.40,73		T.	
	H. C. 37204. <i>nf.</i> ...	57,2	11,1	25,1	39,6	53,7	7,4	21,7	19.29.39,40				39,31			19.30.34,74		T.	
	B.A.C. 6738.....			5,2	20,2	35,2	49,9	4,9	19.32.20,22				20,11			19.33.15,54		T.	
	H. C. 37447.....	14,0	28,1	42,0	56,2	10,4	24,6	38,8	19.34.56,30				56,21			19.35.51,64		T.	
	α Aquilæ.....	51,4	5,0	18,3	32,1	46,0	59,4	13,1	19.42.32,18				32,11	55,42		19.43.27,54		T.	
	ω Sagittarii.....	57,7	12,7	27,3	42,8	57,9	12,8	27,9	19.45.42,73				42,62			19.46.38,05		T.	
	ϵ Sagittarii.....	48,7	2,6	16,3	30,8	44,6	58,4	12,2	19.48.30,51				30,41			19.49.25,84		T.	
	H. C. 38113.....	38,8	53,3	7,2	22,1	36,6	51,1	5,4	19.51.22,07				21,97			19.52.17,41		T.	
	(c) H. C. 38240.....			59,0	14,0	29,2	44,2	59,2	19.54.14,06				13,95			19.55.9,39		T.	
	H. C. 38398.....	59,1	13,2	27,8	42,1	56,9	11,0	25,0	19.57.42,15				42,06			19.58.37,50		T.	
	(d) H. C. 38517.....	45,2		15,1	30,1	45,2		15,0	20.0.30,12				30,01			20.1.25,45		T.	
	H. C. 38839.....	39,9	54,2	8,6	23,3	37,8	52,2	6,8	20.7.23,25				23,15			20.8.18,59		T.	
	α^3 Capricorni.....					1,9	15,5	29,3	20.8.47,94				47,85	55,34		20.9.43,29		T.	
	(e) β Aquarii.....	3,1	16,5	29,9	43,7	57,5	10,7	24,3	21.22.43,67				43,59	55,62		21.23.39,06		T.	
	α Aquarii.....	28,8	42,1	55,4	8,9	22,6	35,9	49,3	21.57.9,00				8,92	55,44		21.58.4,41		T.	
	(f) Metis.....	16,3	30,6	44,9	59,8	14,0	28,3	42,6	22.23.59,50				59,41			22.24.54,91		T.	
Aug. 18	(g) μ^1 Sagittarii.....		22,0	36,1	50,9	5,0	19,6		18.3.50,72			+0,5	50,63	56,03	0,57	18.4.46,60		T.	
	H. C. 34362.....	19,1	33,1	47,5	2,0	16,2	30,7	44,9	18.26.1,93				1,84			18.26.57,81		T.	
	H. C. 34504.....	48,9	3,3	17,8	32,7	47,1	1,5	15,9	18.29.32,45				32,35			18.30.28,33		T.	
	(h) H. C. 34619.....	51,2	5,8	19,9	34,2	49,0	3,2	17,4	18.32.34,38				34,29			18.33.30,27		T.	
	(i) H. C. 34717.....	41,2	55,9	10,1	24,7	39,4	53,5	7,9	18.35.24,67				24,58			18.36.20,56		T.	
	H. C. 34860.....	44,2	58,3	12,4	27,0	41,2	55,3	9,6	18.38.26,86				26,77			18.39.22,75		T.	
	(k) B.A.C. 6403.....		37,2	52,1	7,8	23,0	37,9		18.41.7,60				7,49			18.42.3,47		T.	
	β Lyrae.....		4,6	20,2	36,8	53,0	8,9		18.43.36,70				36,66	56,10		18.44.32,64		T.	
	H. C. 35240.....		37,1	51,0	5,4	19,5	33,6		18.47.5,32				5,23			18.48.1,22		T.	
	H. C. 35355.....	56,5	10,9	25,2	39,9	54,7	8,8	23,1	18.49.39,88				39,78			18.50.35,77		T.	
	H. C. 35468.....	47,0	0,9	14,9	29,0	43,2	57,1	11,0	18.52.29,02				28,94			18.53.24,93		T.	
	H. C. 35592.....	31,3	45,5	59,6	13,8	27,9	41,9	55,9	18.55.13,70				13,62			18.56.9,61		T.	
	B.A.C. 6536.....	48,5	2,7	16,8	31,4	45,6	59,7	14,0	18.58.31,24				31,15			18.59.27,14		T.	
	(l) H. C. 35856.....				16,0	31,2	46,3	1,1	19.1.15,89				15,78			19.2.11,77		T.	
	B.A.C. 6576.....	43,9	58,3	13,1	28,0	43,0	57,9	12,4	19.5.28,09				27,98			19.6.23,97		T.	
	δ Sagittarii.....		26,2	40,3	54,9	9,3	23,2		19.7.54,78				54,69			19.8.50,68		T.	
	H. C. 36403.....		51,9	5,9	20,2	34,7	48,9		19.12.20,32				20,23			19.13.16,22		T.	
	χ^1 Sagittarii.....		42,1	57,0	11,9	27,0	41,8		19.15.11,96				11,85			19.16.7,84		T.	
	(m) B.A.C. 6666.....	53,2	8,3	23,1	38,8	54,0	9,1	24,0	19.19.38,65				38,54			19.20.34,54		T.	
	(n) H. C. 36929.....		1,0	15,0	29,3	43,9		12,2	19.23.29,42				29,33			19.24.25,33		T.	
	(o) δ Sagittarii.....	7,8	22,4	37,1	52,0	6,8	21,0	36,0	19.29.51,87				51,76			19.30.47,76		T.	

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^{\circ},362$, $-26^{\circ},877$, $-13^{\circ},616$, $+0^{\circ},065$, $+13^{\circ},537$, $+26^{\circ},890$, $+40^{\circ},362$.

(a) Confused observation, coming too close after the preceding. The counting was thought to be 10^s slow, but as the observer was uncertain of the amount, 40^s have been added from a comparison with the Ephemeris. (b) Sky just clear. (c) Too faint. (d) Cloudy. (e) Extremely unsteady. (f) Excessively faint. An object of Mag. 12 followed about 12^s. (g) Deficient illumination of the field. (h) This is Argelander Z. 227 No 66. (i) Observed hurriedly at the first wires. (k) Argelander Z. 223 No 104. (l) Too faint to be seen before: doubtful observation. (m) No other star could be seen. (n) Difficult to observe: so faint. (o) An equal star of nearly the same N.P.D. followed about 18^s; viz. B.A.C. 6727.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"							
Aug. 18	H. C. 37447.....	13,2	27,3	41,4	55,9	10,1	23,9	38,2	19.34.55,72	-0,4	+0,5	-1,2	55,63		0,57	19.35.51,63			T.
	γ Aquilæ.....	30,4	44,2	57,8	11,8	25,4	39,2	52,6	19.38.11,63				11,56	55,89		19.39.7,57			T.
	(a) α Aquilæ.....		4,6	17,8	31,9	45,3	58,9		19.42.31,70				31,63	55,90		19.43.27,64			T.
	β Aquarii.....	2,5	16,1	29,3	43,2	56,9	10,2	23,8	21.22.43,14				43,06	56,15		21.23.39,10			T.
	α Aquarii.....	28,0	41,4	54,8	8,6	22,1	35,3	48,8	21.57.8,43				8,36	56,01		21.58.4,42			T.
	Metis.....	20,0	34,2	48,3	2,9	17,3	31,4	45,9	22.23.2,86				2,77			22.23.58,84			T.
Aug. 24	ζ Aquilæ.....	48,7	2,6	16,2	30,2	44,2	58,0	11,6	18.57.30,21	+0,2	+3,0	-1,0	30,35	60,25	0,80	18.58.30,60			T.
	H. C. 35902.....	15,3	29,8	44,0	58,2	13,2	27,4	41,7	19.1.58,52				58,53			19.2.58,78			T.
	B.A.C. 6576.....	39,3	54,1	8,9	23,3	38,8	53,3	8,0	19.5.23,67				23,66			19.6.23,92			T.
	δ Sagittarii.....		21,9	36,0	50,3	4,8	18,9		19.7.50,38				50,39			19.8.58,65			T.
	B.A.C. 6604.....	49,0	3,8	18,3	33,2	48,4	2,8	17,6	19.10.33,30				33,29			19.11.33,55			T.
	H. C. 36448.....	33,4	47,8	1,9	16,1	30,5	44,8	58,9	19.13.16,20				16,22			19.14.16,48			T.
	H. C. 36562.....		13,4	28,1	42,6	57,5	11,9		19.15.42,70				42,70			19.16.42,96			T.
	(b) B.A.C. 6658.....	38,0	52,2	6,2	20,5	35,0	49,0	3,0	19.18.20,55				20,57			19.19.20,83			T.
	(b)(c) H. C. 36810.....	14,1	28,4	42,2	56,7	11,0	25,0	39,2	19.21.56,66				56,68			19.21.56,94			T.
	η^2 Sagittarii.....	49,0	3,8	18,4	33,3	48,5	3,3	18,1	19.27.33,48				33,47			19.27.33,74			T.
	(d) ϵ^1 Sagittarii.....	24,8	38,7	52,6	6,6	21,0	34,9	48,9	19.32.6,79				6,82			19.32.7,09			T.
	γ Aquilæ.....	26,0	39,4	53,3	7,0	20,9	34,3	48,1	19.39.7,00				7,13	60,27		19.39.7,40			T.
	α Aquilæ.....	46,2	59,9	13,3	26,9	40,9	54,3	7,8	19.43.27,04				27,16	60,32		19.43.27,44			T.
	β Aquilæ.....	15,2	29,0	42,2	55,9	9,8	23,0	36,6	19.46.55,96				56,08	60,25		19.47.56,36			T.
	(e) β Aquarii.....		8,3		35,6	49,2	2,6	16,1	21.23.35,50	-0,4	+0,8		35,44	3,80	0,92				T.
	(f) α Aquarii.....	20,4	33,8	47,1	0,8	14,2	27,6	41,1	21.58.0,71				0,66	3,76					T.
	(c)(g) Metis.....	32,0	46,3	0,9	15,3	29,9	44,1		22.14.15,29				15,22			22.14.19,02			T.
	(h) Neptune.....			54,8	9,3	23,1	36,7	50,3	22.22.9,14				9,07			22.22.12,88			T.
Sept. 1	(b) ζ Aquilæ.....	41,4	55,3	9,0	23,0	36,9	50,5	4,5	18.58.22,94				22,93	7,56	1,05	18.58.30,44			T.
	(b) γ Aquilæ.....		32,4		0,1	13,5	27,1	40,9	19.38.59,83				59,81	7,51		19.39.7,35			T.
	α Aquilæ.....	39,2	52,6	6,0	20,0	33,8	47,1	0,6	19.43.19,90				19,88	7,53		19.43.27,42			T.
Sept. 3	(e) ζ Aquilæ.....				20,8	34,8	48,4	2,2	18.58.20,75				20,74	9,73	1,23				T.
Sept. 4	(i) δ Ursæ Minoris.....				49,5		22,5	10,5	18.20.48,55				49,75		1,18				T.
	(k) H. C. 35009.....	35,0	49,0	3,1	17,5	31,9	45,4	59,3	18.42.17,32				17,27			18.42.28,26			T.
	(l) β Lyræ.....			5,0	21,3	37,3	53,2	9,5	18.44.21,19				21,22	11,24		18.44.32,23			T.
	H. C. 35497.....				3,0	17,2	31,2	45,5	18.54.2,78				2,72			18.54.13,74			T.
	B.A.C. 6515.....			30,8	46,2	1,1	16,2	31,5	18.56.45,99				45,90			18.56.56,92			T.
	B.A.C. 6544.....	2,0	16,1	30,2	44,7	59,2	13,1	27,4	18.59.44,67				44,61			18.59.55,63			T.
	H. C. 35935.....	40,1	54,9	9,2	24,8	39,3	54,2	9,0	19.3.24,50				24,42			19.3.35,45			T.
	B.A.C. 6576.....	28,6	43,1	58,0	12,9	27,8	42,6	57,2	19.6.12,88				12,80			19.6.23,83			T.
	B.A.C. 6587.....	30,0	44,2	58,3	12,8	27,1	41,2	55,4	19.9.12,71				12,65			19.9.23,68			T.
	(m) B.A.C. 6611.....	34,8	48,9	2,8	17,9	32,2	48,1	3,0	19.12.18,25				18,17			19.12.29,20			T.
	(n) H. C. 36585.....	6,8	21,1	35,2	50,0	4,5	18,8	33,0	19.16.49,91				49,85			19.17.0,88			T.
	(o) B.A.C. 6658.....			55,4	10,0	24,2	38,1	52,2	19.19.9,79				9,74			19.19.20,78			T.
	(o)(p) H. C. 36835.....		49,2	4,1	19,0	33,2	47,8		19.22.18,66				18,60			19.22.29,64			T.
	H. C. 36999.....		30,7	45,3	0,1	14,4	28,5		19.25.59,80				59,74			19.26.10,78			T.
	(q) B.A.C. 6727.....	10,0	24,6	39,0	54,1	8,9	23,2	38,1	19.30.53,98				53,90			19.31.4,95			T.
	H. C. 37439.....			32,0	47,2	2,8	17,5	33,1	19.35.47,32				47,23			19.35.58,29			T.
	γ Aquilæ.....	15,4	29,1	42,5	56,5	10,1	23,5	37,2	19.38.56,33				56,31	10,98		19.39.7,37			T.
	α Aquilæ.....	35,6	49,1	2,5	16,2	30,1	43,4	57,1	19.43.16,29				16,27	11,10		19.43.27,33			T.
	B.A.C. 6831.....	47,2	1,9	16,2	31,1	46,0	0,5	15,2	19.47.31,15				31,07			19.47.42,13			T.
	B.A.C. 6850.....	45,1	59,2	14,1	28,9	43,6	58,0	12,3	19.50.28,75				28,67			19.50.39,73			T.
	H. C. 38398.....	43,0	57,5	11,9	26,3	40,8	55,0	9,2	19.58.26,24				26,18			19.58.37,25			T.
	B.A.C. 6923.....	49,0	3,4	17,4	32,0	46,2	0,6	15,0	20.1.31,94				31,88			20.1.42,96			T.
	(r) α^2 Capricorni.....	50,9	4,6			46,0	59,8	13,3	20.9.32,14				32,09	11,00		20.9.43,17			T.
	β Aquarii.....	47,8	1,0	14,3	28,2	41,7	55,3	8,7	21.23.28,15				28,11	11,11		21.23.39,22			T.
	(b) α Aquarii.....	13,1	26,3	39,8	53,4	7,1	20,2	33,7	21.57.53,37				53,34	11,09		21.58.4,47			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^{\circ}362$, $-26^{\circ}877$, $-13^{\circ}616$, $+0^{\circ}065$, $+13^{\circ}537$, $+26^{\circ}890$, $+40^{\circ}362$, except on Aug. 24, on which day the Illumination was East, and the Equatorial Intervals were $-40^{\circ}362$, $-26^{\circ}890$, $-13^{\circ}537$, $-0^{\circ}065$, $+13^{\circ}616$, $+26^{\circ}877$, $+40^{\circ}362$.

(a) Large stars this night were badly defined and moved irregularly. (b) Cloudy. (c) Very faint. (d) Too cloudy for any but bright stars. (e) Dense cloud. (f) Just visible. (g) Considered a good observation. (h) Almost too faint: not seen at the other wires. (i) Hid by clouds at the other wires. (k) 'Preceded by an equal star of greater N.P.D.' (l) Wire VII, which was set down 8,5, has been altered conjecturally. (m) Quite uncertain, noise preventing the beat of the clock from being heard. (n) 'Good.' (o) Disturbance by a carriage passing. (p) The observer thought the counting was 1' slow. No alteration has been made. (q) 'The second of three.' (r) Seen faintly at intervals.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"							
Sept. 5	(a) Polaris SP. ....	....	....	2,0	37,5	20,5	50,5	30,0	13. 5. 40,22	-0,4	+1,3	-1,0	37,58		1,12				T.
	μ^1 Sagittarii.....	51,1	5,4	19,7	34,5	48,9	3,2	17,6	18. 4. 34,34				34,28	12,11		18. 4. 46,39			T.
	(a) δ Ursæ Minoris...	....	....	58,3	....	37,2	22,0	9,2	18. 20. 48,09				49,29						T.
	H. C. 34717.....	24,8	39,3	53,7	8,4	22,8	37,0	51,5	18. 36. 8,22				8,16			18. 36. 20,30			T.
	B.A.C. 6386.....	....	16,1	30,4	45,3	59,4	13,8	....	18. 38. 45,00				44,94			18. 38. 57,08			T.
	30 Sagittarii.....	52,6	7,2	21,6	36,5	51,2	5,3	20,0	18. 41. 36,35				36,28			18. 41. 48,42			T.
	H. C. 35086.....	37,0	51,2	5,2	19,9	34,0	48,1	2,4	18. 44. 19,69				19,63			18. 44. 31,77			T.
	B.A.C. 6467.....	20,6	34,5	49,0	3,6	18,0	32,4	46,8	18. 49. 3,56				3,50			18. 49. 15,65			T.
	B.A.C. 6490.....	19,0	34,1	48,5	3,8	18,4	33,2	48,1	18. 53. 3,58				3,50			18. 53. 15,65			T.
	H. C. 35582.....	....	21,8	33,4	50,1	4,1	18,2	....	18. 55. 40,92				49,87			18. 56. 2,02			T.
	π Sagittarii.....	54,2	8,4	22,8	37,4	51,8	6,2	20,5	19. 0. 37,33				37,27			19. 0. 49,43			T.
	H. C. 35931.....	....	46,2	0,9	16,2	31,3	46,1	....	19. 3. 16,14				16,06			19. 3. 28,22			T.
	H. C. 36087.....	40,2	54,2	8,4	23,1	37,5	51,5	6,0	19. 6. 22,98				22,92			19. 6. 35,08			T.
	B.A.C. 6587.....	28,8	43,0	57,1	11,5	25,9	40,0	54,1	19. 9. 11,48				11,42			19. 9. 23,58			T.
	H. C. 36403.....	20,9	35,2	49,4	3,9	18,1	32,3	46,4	19. 13. 3,74				3,68			19. 13. 15,85			T.
	χ^2 Sagittarii.....	17,9	32,6	47,2	2,2	17,1	32,0	46,7	19. 16. 2,24				2,16			19. 16. 14,33			T.
	H. C. 36678.....	18,0	32,3	46,6	1,1	15,9	30,0	44,3	19. 19. 1,17				1,11			19. 19. 13,28			T.
	H. C. 36810.....	2,2	16,2	30,3	44,8	59,2	13,1	27,3	19. 21. 44,73				44,68			19. 21. 56,85			T.
	(b) H. C. 36929.....	30,1	44,2	58,3	13,0	27,1	41,1	55,4	19. 24. 12,74				12,68			19. 24. 24,86			T.
	(c) H. C. 37079.....	9,0	23,2	37,1	51,9	6,1	20,3	34,4	19. 27. 51,71				51,65			19. 28. 3,83			T.
	(d) ϵ^1 Sagittarii.....	12,4	27,1	40,3	54,8	9,0	22,8	36,9	19. 31. 54,76				54,70			19. 32. 6,88			T.
	H. C. 37481.....	5,4	21,0	36,0	51,1	6,3	21,3	36,9	19. 36. 51,14				51,05			19. 37. 3,23			T.
	γ Aquilæ.....	....	27,9	41,2	55,1	9,1	22,3	36,2	19. 38. 55,14				55,12	12,16		19. 39. 7,31			T.
	α Aquilæ.....	34,3	48,1	1,3	15,3	29,1	42,3	56,1	19. 43. 15,21				15,19	12,17		19. 43. 27,38			T.
	β Aquilæ.....	3,4	17,0	30,3	44,2	57,8	11,1	24,7	19. 47. 44,07				44,05	12,16		19. 47. 56,24			T.
	(e) H. C. 38290.....	25,9	40,1	54,2	8,6	22,8	37,0	51,2	19. 56. 8,55				8,49			19. 56. 20,69			T.
	H. C. 38434.....	....	57,2	12,0	27,0	41,8	56,3	....	19. 59. 26,86				26,78			19. 59. 38,98			T.
	H. C. 38635.....	....	26,0	40,4	55,6	10,2	25,6	....	20. 3. 55,56				55,48			20. 4. 7,68			T.
	H. C. 38765.....	45,6	59,6	13,4	27,9	42,0	56,0	10,0	20. 6. 27,79				27,74			20. 6. 39,95			T.
	H. C. 38917.....	1,9	16,4	31,1	46,1	1,0	15,5	30,3	20. 9. 46,05				45,97			20. 9. 58,18			T.
	H. C. 39095.....	58,8	12,6	....	40,4	54,4	8,6	22,8	20. 13. 40,57				40,51			20. 13. 52,72			T.
	α Aquarii.....	11,9	25,2	38,5	52,1	5,8	19,1	32,3	21. 57. 52,13				52,10	12,33		21. 58. 4,39			T.
	Neptune.....	....	44,2	57,5	11,7	25,4	39,1	....	22. 21. 11,58				11,53			22. 21. 23,84			T.
Sept. 7	H. C. 35932.....	28,8	43,4	58,1	12,6	27,2	41,8	56,7	19. 3. 12,65		+0,5		12,56		0,76	19. 3. 25,84			T.
	H. C. 36087.....	38,9	53,0	7,2	21,8	36,3	50,4	4,9	19. 6. 21,78				21,70			19. 6. 34,98			T.
	(f) H. C. 36239.....	47,0	1,2	15,4	29,9	44,0	58,2	12,4	19. 9. 29,73				29,66			19. 9. 42,94			T.
	ρ^1 Sagittarii.....	9,1	23,2	37,1	51,9	6,1	20,0	34,2	19. 12. 51,65				51,58			19. 13. 4,87			T.
	χ^1 Sagittarii.....	10,1	24,7	39,5	54,5	9,2	24,1	38,9	19. 15. 54,43				54,34			19. 16. 7,63			T.
	(g) B.A.C. 6658.....	24,8	39,1	53,0	7,5	21,8	35,8	50,0	19. 19. 7,43				7,36			19. 19. 20,65			T.
	(h) H. C. 36929.....	....	43,1	57,1	11,9	26,0	40,2	....	19. 24. 11,66				11,59			19. 24. 24,88			T.
	(h) h^1 Sagittarii.....	35,8	50,6	5,2	20,3	35,3	50,1	4,6	19. 27. 20,27				20,18			19. 27. 33,48			T.
	(i) γ Aquilæ.....	12,9	26,8	40,0	54,2	7,9	21,2	34,8	19. 38. 53,97				53,91	13,34		19. 39. 7,21			T.
	(k) α Aquilæ.....	....	....	0,2	14,0	27,5	41,3	55,0	19. 43. 14,00				13,94	13,40		19. 43. 27,24			T.
	β Aquilæ.....	2,6	16,0	29,3	43,1	56,8	10,2	23,7	19. 47. 43,10				43,04	13,15		19. 47. 56,35			T.
	H. C. 38096.....	49,1	3,2	17,4	32,1	46,5	0,7	15,0	19. 51. 32,00				31,92			19. 51. 45,23			T.
	B.A.C. 6889.....	10,8	25,3	39,4	54,2	9,0	23,2	37,5	19. 55. 54,20				54,12			19. 56. 7,43			T.
	H. C. 38398.....	....	55,3	9,6	24,1	38,7	52,8	....	19. 58. 24,10				24,02			19. 58. 37,33			T.
	B.A.C. 6923.....	46,8	1,0	15,0	29,7	44,0	58,2	12,5	20. 1. 29,60				29,53			20. 1. 42,85			T.
	H. C. 38740.....	5,2	19,7	33,6	48,2	2,7	17,0	31,1	20. 5. 48,22				48,15			20. 6. 1,47			T.
	α^1 Capricorni.....	48,5	2,1	15,7	30,0	43,8	57,4	11,1	20. 9. 29,80				29,72	13,34		20. 9. 43,04			T.
	(l) β Capricorni.....	39,1	53,0	6,8	21,0	35,1	48,8	2,8	20. 12. 20,94				20,86			20. 12. 34,18			T.
	H. C. 39200.....	48,3	3,2	17,4	32,3	47,1	1,1	15,8	20. 16. 32,17				32,08			20. 16. 45,40			T.
	H. C. 39350.....	19,1	33,8	48,0	2,8	17,2	31,4	46,0	20. 20. 2,61				2,53			20. 20. 15,85			T.
Sept. 8	(m) γ Aquilæ.....	12,2	25,9	39,3	53,2	7,1	20,4	34,1	19. 38. 53,17				53,11	14,13	0,75	19. 39. 7,13			T.
	α Aquilæ.....	32,8	46,3	59,7	13,3	27,1	40,6	54,2	19. 43. 13,43				13,37	13,96		19. 43. 27,39			T.
	β Aquilæ.....	1,8	15,3	28,9	42,5	56,1	9,4	23,0	19. 47. 42,43				42,37	13,81		19. 47. 56,40			T.
	B.A.C. 6907.....	....	18,2	32,4	46,7	0,8	14,4	....	19. 59. 46,50				46,42			20. 0. 0,45			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, -40°,362, -26°,877, -13°,616, +0°,065, +13°,537, +26°,890, +40°,362.

(a) Very steady. (b) The counting being 1st slow, all the wires except I and II have been increased 1st. (c) 'A bright star of less N.P.D. preceded about 23rd.' (d) 'Of Mag. 7, accompanied by a north-following star of Mag. 9.' The noted times were 10th in excess. (e) 'One of Mag. 10 and less N.P.D. follows about 11th.' (f) All the wires except the first have been diminished 10th. 'A smaller star of greater N.P.D. follows about 14th.' (g) 'Preceded by one of equal Mag.' (h) Cloudy. (i) Irregular motion and bad definition. (k) Flaring. (l) 'A fainter preceded.' Wires VI and VII have been corrected by -4th. (m) Very bad definition.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	s.	h.	m.	s.
Sept. 8	H. C. 38618.....	47,4	2,2	17,0	32,2	47,1	2,0	17,0	20. 3. 32,13	-0,4	+0,5	-1,0	32,04		0,75	20. 3. 46,08			T.
	H. C. 38765.....	43,8	57,6	11,8	26,0	40,2	54,1	8,2	20. 6. 25,96				25,89			20. 6. 39,93			T.
	α^2 Capricorni.....	47,7	1,2	15,0	29,0	43,0	56,8	10,5	20. 9. 29,03				28,95	14,10		20. 9. 42,99			T.
	(a) B.A.C. 6992.....	24,2	38,1	51,9	6,1	20,1	34,0	48,0	20. 12. 6,06				5,98			20. 12. 20,02			T.
	(b)(c) H. C. 39154.....	....	48,0	3,2	18,9	32,9	46,8	2,0	20. 15. 18,01				17,92			20. 15. 31,96			T.
	(c) H. C. 39350.....	18,3	33,1	47,1	1,8	16,3	30,9	45,0	20. 20. 1,78				1,70			20. 20. 15,74			T.
	H. C. 39603.....	26,3	40,4	54,3	8,7	22,9	36,9	50,9	20. 26. 8,63				8,55			20. 26. 22,60			T.
	B.A.C. 7113.....	12,9	27,5	42,1	57,1	12,2	26,8	40,8	20. 28. 57,06				56,97			20. 29. 11,02			T.
	H. C. 39844.....	49,3	3,5	17,1	31,4	45,2	59,1	13,0	20. 31. 31,22				31,14			20. 31. 45,19			T.
	Neptune.....	10,4	24,4	37,9	51,9	5,8	19,2	....	22. 20. 51,78				51,71			22. 21. 5,82			T.
	α Andromedæ.....	38,8	54,1	9,2	24,9	39,9	55,2	10,2	0. 0. 24,61				24,57	14,31		0. 0. 38,73			T.
	β Ceti.....	6,3	20,5	34,7	49,2	3,5	17,4	31,7	0. 35. 49,05				48,96	14,14		0. 36. 3,14			T.
Sept. 11	β Lyrae.....	....	44,2	0,3	16,5	32,7	48,9	4,8	18. 44. 16,53				16,50	15,81	0,28	18. 44. 32,16			T.
	γ Aquilæ.....	10,8	24,3	37,9	51,6	5,3	19,0	32,6	19. 38. 51,64				51,58	15,61		19. 39. 7,25			T.
	α Aquilæ.....	31,2	44,4	58,0	11,7	25,3	38,8	52,6	19. 43. 11,71				11,65	15,64		19. 43. 27,32			T.
	(d) β Aquilæ.....	0,3	13,6	27,0	40,7	54,4	7,9	21,2	19. 47. 40,73				40,67	15,47		19. 47. 56,34			T.
	(e) * N.P.D. 111°. 19'	12,2	27,1	41,3	56,0	10,3	24,4	38,8	20. 17. 55,73				55,65			20. 18. 11,33			T.
	(f) H. C. 39471.....	22,0	36,4	51,4	6,3	21,4	36,2	51,1	20. 23. 6,40				6,31			20. 23. 21,99			T.
	B.A.C. 7097.....	4,3	18,2	32,3	46,4	0,7	14,7	28,6	20. 26. 46,46				46,39			20. 27. 2,07			T.
	B.A.C. 7123.....	36,6	50,4	4,5	18,6	32,9	47,0	1,0	20. 30. 18,72				18,65			20. 30. 34,33			T.
	H. C. 39901.....	10,2	24,3	38,7	53,1	7,2	21,5	36,0	20. 32. 53,00				52,92			20. 33. 8,60			T.
	H. C. 39981.....	....	34,8	48,9	3,7	17,9	32,2	....	20. 35. 3,50				3,42			20. 35. 19,10			T.
	H. C. 40056.....	32,9	47,2	1,3	16,0	30,3	44,3	58,9	20. 37. 15,84				15,76			20. 37. 31,44			T.
	(g) H. C. 40152.....	49,2	3,3	17,3	32,0	46,1	0,3	14,3	20. 40. 31,78				31,71			20. 40. 47,39			T.
	H. C. 40386.....	14,1	28,1	42,2	57,0	11,1	25,3	39,5	20. 46. 56,76				56,69			20. 47. 12,37			T.
	Bessel xx. 1291...	20,6	34,5	48,1	2,2	16,1	29,8	43,7	20. 50. 2,14				2,06			20. 50. 17,74			T.
	Bessel xx. 1370...	28,0	41,9	55,5	9,5	23,6	37,1	51,1	20. 53. 9,53				9,45			20. 53. 25,13			T.
	B.A.C. 7312.....	27,4	41,4	55,5	9,8	24,2	38,3	52,2	20. 56. 9,83				9,76			20. 56. 25,44			T.
	H. C. 40863.....	47,0	0,9	14,3	28,3	42,2	56,1	10,0	20. 58. 28,40				28,32			20. 58. 44,00			T.
	H. C. 40967.....	20,0	34,7	49,2	4,0	18,7	33,1	47,9	21. 1. 3,94				3,85			21. 1. 19,54			T.
	(h) Metis.....	32,0	46,3	0,8	15,4	30,0	44,4	....	22. 1. 15,40				15,32			22. 1. 31,02			T.
	Neptune.....	51,1	4,6	18,1	32,2	46,0	59,5	....	22. 20. 32,10				32,03			22. 20. 47,73			T.
	α Andromedæ....	37,2	52,5	7,7	23,1	38,5	53,6	9,0	0. 0. 23,08				23,04	15,86		0. 0. 38,76			T.
Sept. 12	ζ Aquilæ.....	....	....	0,5	14,3	28,2	42,2	56,0	18. 58. 14,40			+0,8	14,36	15,96	0,14	18. 58. 30,22			T.
	γ Aquilæ.....	10,4	24,3	37,4	51,5	5,3	18,5	32,4	19. 38. 51,40				51,36	15,82		19. 39. 7,22			T.
	(i) α Aquilæ.....	....	....	57,9	11,4	25,3	38,8	52,4	19. 43. 11,56				11,52	15,75		19. 43. 27,38			T.
	β Aquilæ.....	59,7	13,2	26,5	40,3	54,1	7,3	20,9	19. 47. 40,28				40,23	15,89		19. 47. 56,09			T.
	H. C. 38917.....	57,9	12,7	27,4	42,4	57,2	12,0	26,6	20. 9. 42,31				42,22			20. 9. 58,09			T.
	H. C. 39031.....	....	50,2	4,7	19,9	34,9	49,2	....	20. 12. 19,78				19,69			20. 12. 35,56			T.
	(k) B.A.C. 7016.....	53,0	7,0	20,8	....	....	2,5	16,2	20. 15. 34,71				34,64			20. 15. 50,51			T.
	Neptune.....	44,8	58,4	12,0	26,0	39,8	53,3	....	22. 20. 25,90				25,84			22. 20. 41,72			T.
Sept. 13	(f) γ Aquilæ.....	10,2	24,0	37,4	51,1	5,1	18,5	32,3	19. 38. 51,23				51,19	15,97	0,09	19. 39. 7,14			T.
	α Aquilæ.....	30,5	44,2	57,7	11,5	25,1	38,4	52,2	19. 43. 11,37				11,33	15,93		19. 43. 27,28			T.
	(l) β Aquilæ.....	59,6	13,2	26,5	40,2	54,0	7,2	20,8	19. 47. 40,21				40,16	15,95		19. 47. 56,11			T.
	(f) H. C. 38932.....	9,0	23,3	37,4	51,9	6,2	20,0	34,1	20. 9. 51,70				51,63			20. 10. 7,59			T.
	(f)(m) H. C. 39095...	54,8	8,8	22,4	....	....	....	....	20. 13. 36,75				36,68			20. 13. 52,64			T.
Sept. 17	(f)(n) Polaris SP.....	....	....	0,0	33,0	....	48,5	25,0	13. 5. 36,76			+1,0	36,17		0,48	13. 5. 54,29			T.
	H. C. 37420.....	31,2	46,0	0,2	15,0	29,8	44,4	59,0	19. 35. 15,09				15,07			19. 35. 33,32			T.
	γ Aquilæ.....	7,8	21,4	35,2	49,0	2,7	16,2	30,0	19. 38. 48,90				48,91	18,20		19. 39. 7,16			T.
	α Aquilæ.....	28,2	41,9	55,2	9,1	22,7	36,1	49,9	19. 43. 9,02				9,03	18,17		19. 43. 27,28			T.
	β Aquilæ.....	57,3	10,8	24,2	38,0	51,5	4,8	18,3	19. 47. 37,85				37,85	18,20		19. 47. 56,11			T.
	B.A.C. 6850.....	37,7	52,2	6,7	21,5	36,2	50,5	5,1	19. 50. 21,41				21,39			19. 50. 39,65			T.
	H. C. 38161.....	13,2	27,5	41,3	55,7	10,1	24,1	38,2	19. 52. 55,73				55,73			19. 53. 13,99			T.
	B.A.C. 6888.....	57,9	13,2	28,2	43,4	58,5	13,3	28,8	19. 55. 43,33				43,31			19. 56. 1,57			T.
	B.A.C. 6903.....	31,1	45,1	59,2	14,0	28,2	42,2	56,4	19. 59. 13,74				13,74			19. 59. 32,00			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, -40',362, -26',877, -13',616, +0',065, +13',537, +26',890, +40',362.

(a) 'A bright star following.' (b) Would scarcely bear sufficient illumination. (c) Stars this night were greatly diffused, and frequently became invisible though no cloud was to be seen. (d) Clouds in the South. (e) The N.P.D. is uncertain. (f) Cloudy. (g) The noted times were 1' in excess. (h) 'Good.' No object near this. (i) Hid by clouds at wires I and II. (k) Interruption by clouds. (l) Corrected by -1'. (m) The noted times have been increased by 1m. (n) Wire III doubtful, the rest satisfactory.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h.	m.	s.	
Sept. 17	H. C. 38635.....	5,0	19,7	34,2	49,3	4,3	19,1	34,1	20. 3. 49,39	-0,4	+1,0	-0,1	49,37		0,48	20. 4. 7,63			T.
	H. C. 38765.....		53,3	7,1	21,6	35,6	49,2		20. 6. 21,36				21,36			20. 6. 39,62			T.
	H. C. 38876.....	22,0	36,2	50,2	4,5	19,0	32,9	47,3	20. 9. 4,59				4,59			20. 9. 22,85			T.
	B.A.C. 6992.....	20,0	33,9	47,3	1,8	15,7	29,5	43,5	20. 12. 1,67				1,66			20. 12. 19,93			T.
	B.A.C. 7019.....	22,8	36,9	51,2	5,9	20,1	34,2	48,4	20. 16. 5,64				5,64			20. 16. 23,91			T.
	(a) Metis.....				41,8	55,9	10,2	25,2	21. 56. 41,46				41,44			21. 56. 59,74			T.
	Neptune.....	13,4	27,0	40,7	54,5	8,4	21,9	35,7	22. 19. 54,51				54,51			22. 20. 12,82			T.
	α Andromedæ.....	34,8	50,0	5,1	20,6	36,0	51,1	6,4	0. 0. 20,57				20,60	18,35		0. 0. 38,94			T.
	(b) β Ceti.....	2,3	16,2	30,3	44,8	59,1	13,1	27,2	0. 35. 44,71				44,70	18,52		0. 36. 3,06			T.
Sept. 19	(c) Polaris SP.....		28,5	56,5			52,0	25,0	13. 5. 37,83				37,24		0,44	13. 5. 56,25			T.
	β Lyræ.....		40,6	56,7	13,0	29,1	45,1	1,1	18. 44. 12,89				12,92	19,22		18. 44. 32,03			T.
	ζ Aquilæ.....	29,7	43,4	57,2	11,1	25,0	39,0	52,5	18. 58. 11,12				11,13	19,07		18. 58. 30,24			T.
	(d) α Aquilæ.....	27,4			8,1	22,0	35,3	48,9	19. 43. 8,15				8,16	19,01		19. 43. 27,29			T.
	β Aquarii.....	39,4	53,0	6,2	20,0	33,8	47,1	0,6	21. 23. 20,01				20,01	19,13		21. 23. 39,17			T.
	Metis.....	38,2	52,3	7,0	21,9	36,2	50,5	5,1	21. 55. 21,60				21,58			21. 55. 40,75			T.
	(e) α Aquarii.....	4,8	18,2	31,5	45,4	58,6	12,3	25,8	21. 57. 45,23				45,24	19,15		21. 58. 4,41			T.
	Neptune.....	1,2	15,0	28,3	42,4	56,1	9,9	23,4	22. 19. 42,33				42,33			22. 20. 1,51			T.
	α Andromedæ.....		49,1	4,1	19,6	35,0	50,2		0. 0. 19,60				19,63	19,34		0. 0. 38,84			T.
	(f) Polaris.....	47,0	24,8	54,3	38,0	16,5			1. 5. 36,47				37,17			1. 5. 56,40			T.
Sept. 21	α Aquarii.....	4,2	17,5	30,8	44,3	58,1	11,3	24,7	21. 57. 44,41				44,42	19,96	0,51	21. 58. 4,47			T.
	α Pegasi.....				57,5	11,6	25,3	39,2	22. 56. 57,54				57,55	20,02		22. 57. 17,62			T.
	α Andromedæ.....	33,1	48,2	3,2	19,0	34,1	49,1	4,4	0. 0. 18,73				18,76	20,22		0. 0. 38,85			T.
Sept. 22	(g) β Aquarii.....	37,9	51,0	4,8	18,5				21. 23. 18,37			+2,2	18,41	20,70	0,71				B.
	(h) ε Pegasi.....					32,4	45,9	59,3	21. 23. 18,78				18,82	(20,29)					C.
		47,6	1,0	14,8	28,5				21. 36. 28,44				28,51	(20,35)					C.
Sept. 24	(i) γ Aquilæ.....	4,0	17,8	31,4	45,2				19. 38. 45,12			-0,4	45,18	(21,81)	0,74	19. 39. 6,82			C.
						58,9	12,3	26,1	19. 38. 45,07				45,13	21,86		19. 39. 7,07			B.
	(i) α Aquilæ.....	24,4	38,1	51,3	5,0				19. 43. 5,12				5,17	21,92		19. 43. 27,12			B.
						18,9	32,4	46,0	19. 43. 5,20				5,25	(21,84)		19. 43. 26,90			C.
	(i) β Aquilæ.....	53,5	6,9	20,6	34,1				19. 47. 34,10				34,14	(21,80)		19. 47. 55,79			C.
						47,4	1,0	14,4	19. 47. 33,84				33,88	22,06		19. 47. 55,83			B.
	B.A.C. 6923.....			6,0	20,4	34,9	48,8	3,4	20. 1. 20,40				20,40			20. 1. 42,36			B.
	(k) H. C. 38765.....			3,1	17,4	31,1	45,7	59,7	20. 6. 17,52				17,33			20. 6. 39,29			B.
	(j) Bessel xxi. 239...	3,0	17,0	30,9	44,6	58,5	12,2	26,0	21. 10. 44,60				44,61			21. 11. 6,30			C.
	(i) 18 Aquarii.....	54,9	8,6	22,1	36,2	49,8	3,9	17,8	21. 15. 36,19				36,20			21. 15. 57,90			C.
Sept. 25	H. C. 37491.....	10,9	25,8	40,2	55,6	10,2	25,1	40,1	19. 36. 55,42				55,40		0,78	19. 37. 18,26			B.
	α Aquilæ.....	23,3	36,8	50,2	4,1	18,0	31,3	45,1	19. 43. 4,11				4,16	22,91		19. 43. 27,02			B.
	β Aquilæ.....	52,5	6,0	19,3	33,1	46,7	0,0	13,8	19. 47. 33,06				33,11	22,82		19. 47. 55,97			B.
	H. C. 38164.....			40,2	55,0	9,2	23,3	37,6	19. 52. 54,79				54,79			19. 53. 17,65			B.
	H. C. 38314.....		57,7	11,3	25,8	40,0	53,8		19. 56. 25,72				25,72			19. 56. 48,58			B.
	B.A.C. 6907.....	55,4	9,3	23,1	37,2	51,3	5,1	19,1	19. 59. 37,22				37,22			20. 0. 0,09			B.
	(l) H. C. 38635.....		14,7		44,8	58,8	13,8	28,2	20. 3. 44,12				44,10			20. 4. 6,97			B.
	B.A.C. 6953.....		40,0	53,7	7,9	22,1	36,1		20. 7. 7,96				7,96			20. 7. 30,83			B.
	α Capricorni.....	38,3	52,3	6,0	20,0	34,0	47,6	1,2	20. 9. 19,91				19,92	22,90		20. 9. 42,80			B.
	H. C. 39095.....	47,7	1,4	15,2	29,7	43,8	57,7	11,7	20. 13. 29,60				29,60			20. 13. 52,48			B.
	H. C. 39210.....		1,9	15,7	29,9	43,8	57,8		20. 16. 29,82				29,82			20. 16. 52,70			B.
	B.A.C. 7039.....	26,0	41,0	55,3	10,7	25,0	40,1	55,0	20. 19. 10,44				10,42			20. 19. 33,30			B.
	(m) H. C. 39471.....	13,9	29,0	43,8	58,9	13,9	28,8	43,4	20. 22. 58,82				58,80			20. 23. 21,68			B.
	B.A.C. 7116.....	35,5		4,6	19,2	33,7	48,0	2,7	20. 29. 19,13				19,13			20. 29. 42,02			B.
	Bessel xx. 844.....		2,2	16,0	30,0	44,1	58,0		20. 32. 30,06				30,07			20. 32. 52,96			B.
	H. C. 40073.....	56,0	10,1	24,1	38,7	53,1	7,2	20,8	20. 37. 38,58				38,58			20. 38. 1,47			B.
	B.A.C. 7221.....	20,2	34,0	47,8	2,0	15,7	29,2	43,1	20. 42. 1,71				1,72			20. 42. 24,61			B.
	B.A.C. 7325.....	1,8	16,0	30,1	45,0	59,5	13,9	27,9	20. 57. 44,89				44,89			20. 58. 7,79			B.
	H. C. 41000.....				35,0	49,2	3,1	17,1	21. 1. 34,89				34,90			21. 1. 57,81			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, -40°,362, -26°,877, -13°,616, +0°,065, +13°,537, +26°,890, +40°,362.

(a) Observed hurriedly. Wire V has been increased by 1^s, the seconds being marked doubtful in the memorandum book. (b) Had definition. (c) The counting for wire II was found to be 5^s in defect: correction applied accordingly. Wire VII was doubtful on account of cloud. (d) Sometimes scarcely visible, at other times flaring. (e) Wires V, VI, and VII have each been decreased 1^s. (f) Considered good. (g) The observations marked with the Italic C were taken by R. C. Carrington, Esq. The clock errors by C are put in brackets, being used for determining the difference of the personal equations of B and C. (h) Cloudy at the other wires. (i) The apparent R.A. by C's observations are corrected by -0^s,30 for difference of personal equation between B and C. (See Introduction). (k) Extremely faint from cloud. (l) Too much clouded to be observed with any certainty. 'A brighter of less N.P.D. preceded.' (m) 'A brighter of greater N.P.D. followed.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"				h. m. s.	h. m. s.	h. m. s.	
Sept. 25	β Aquarii.....	35,4	49,0	2,1	16,0	29,8	43,1	56,7	21.23.16,01	-0,4	+2,2	-0,4	16,04	23,04	0,78	21.23.38,95			B.
	(a) κ Capricorni.....	10,8	25,0	39,0	53,6	7,8	22,0	36,4	21.33.53,51				53,51			21.34.16,13			C.
	(b)Metis.....	15,7	29,8	44,1	....	14,3	28,7	43,3	21.51.59,33				59,32			21.52.22,25			B.
	(c)(a) α Aquarii.....	1,4	14,9	28,2	41,6	....	....	....	21.57.41,73				41,77	(22,58)		21.58.4,40			C.
	Neptune.....	....	....	....	....	55,1	8,6	21,9	21.57.41,60				41,64	22,71		21.58.4,57			B.
	ρ Aquarii.....	25,0	38,9	52,2	6,2	20,0	33,7	47,1	22.19.6,16				6,18			22.19.29,13			B.
	(d)Bessel XXI. 521..	14,3	28,0	41,5	55,0	8,9	22,3	36,0	22.11.55,14				55,16			22.12.17,80			C.
	64 Aquarii.....	45,5	58,8	12,0	25,7	39,0	52,5	6,0	22.24.25,64				25,68			22.24.48,33			C.
	η Pegasi.....	18,0	31,8	45,2	59,6	13,1	27,2	41,4	22.30.59,48				59,50			22.31.22,15			C.
	μ Pegasi.....	....	5,0	20,9	36,3	51,7	6,9	22,4	22.35.36,15				36,25			22.35.58,90			C.
	B.A.C. 8010.....	39,3	54,2	8,9	23,4	38,6	53,0	7,9	22.42.23,61				23,70			22.42.46,36			C.
	(a) α Pegasi.....	26,0	39,4	53,2	7,0	20,7	34,1	47,9	22.52.6,90				6,92			22.52.29,58			C.
	....	12,9	26,8	40,3	54,6	....	....	....	22.56.54,49				54,56	23,01		22.57.17,53			B.
	....	....	....	....	....	8,9	22,7	36,5	22.56.54,91				54,98	(22,59)		22.57.17,65			C.
	(a) β Aquarii.....	35,0	48,6	2,0	15,8	....	....	....	21.23.15,67				15,70	(23,37)	0,75	21.23.39,11			C.
	Bessel XXI. 695...	....	....	....	....	29,0	42,2	56,0	21.23.15,31				15,34	23,73		21.23.39,05			B.
Sept. 26	(e)(a)Bessel XXI. 835..	8,6	22,1	35,7	50,0	3,7	17,1	31,0	21.28.49,74				49,75			21.29.13,46			B.
	(a) λ Capricorni.....	31,0	....	....	12,5	26,2	40,0	53,9	21.34.12,42				12,43			21.34.35,85			C.
	Bessel XXI. 1023..	21,8	36,0	49,9	3,6	17,2	31,0	44,7	21.38.3,46				3,47			21.38.26,89			C.
	(f)Metis.....	58,7	12,1	25,7	39,8	53,5	7,0	20,8	21.42.39,66				39,68			21.43.3,40			B.
	(a) α Aquarii.....	....	3,1	17,4	31,1	46,3	0,7	15,9	21.51.31,82				31,81			21.51.55,53			B.
	....	0,2	13,7	27,0	40,6	....	....	....	21.57.40,58				40,62	23,72		21.58.4,35			B.
	Neptune.....	....	....	....	....	54,6	7,9	21,4	21.57.41,04				41,08	(23,26)		21.58.4,51			C.
	α Andromedæ....	18,9	32,9	46,3	0,3	14,1	27,8	41,3	22.19.0,22				0,24			22.19.23,98			B.
	β Ceti.....	29,2	44,6	59,7	14,9	30,6	45,7	0,9	0.0.15,09				15,19	23,81		0.0.38,98			B.
	Polaris.....	57,0	10,9	25,1	39,7	53,9	7,9	22,2	0.35.39,53				39,53	23,76		0.36.3,34			B.
	(g)Polaris SP.....	39,8	17,3	53,5	32,5	12,0	45,5	21,0	1.5.31,66				35,29			1.5.58,65			B.
	(g)Polaris SP.....	49,0	33,0	53,8	36,5	19,0	....	27,7	13.5.38,43				34,97			13.5.58,42			B.
	γ Aquilæ.....	58,9	12,5	25,9	40,0	53,7	7,1	20,9	19.38.39,85				39,95	26,90	0,02	19.39.6,88			B.
	α Aquilæ.....	19,2	32,8	46,2	0,0	13,8	27,0	40,8	19.42.59,97				0,07	26,88		19.43.27,00			B.
Oct. 2	β Aquilæ.....	48,1	1,8	15,0	28,9	42,5	55,8	9,3	19.47.28,77				28,86	26,95		19.47.55,79			B.
	(h)H. C. 38334.....	6,2	20,1	34,0	48,1	2,1	16,1	30,0	19.56.48,09				48,15			19.57.15,08			B.
	(i)B.A.C. 6907.....	....	....	18,9	32,9	47,0	0,8	14,9	19.59.32,95				33,01			19.59.59,94			B.
	(k)H. C. 38618.....	32,9	48,4	3,2	18,8	33,7	48,3	2,2	20.3.18,22				18,25			20.3.45,18			B.
	B.A.C. 6953.....	21,2	35,6	49,3	3,8	17,8	31,7	45,9	20.7.3,61				3,66			20.7.30,59			B.
	(a) β Capricorni.....	25,3	39,1	53,2	7,0	21,2	35,0	48,9	20.12.7,10				7,16			20.12.33,79			C.
	H. C. 39210.....	43,3	57,2	11,0	25,4	39,3	53,1	7,0	20.16.25,19				25,25			20.16.52,18			B.
	(a)H. C. 39350.....	5,4	20,0	34,2	48,8	3,4	17,8	32,0	20.19.48,80				48,85			20.20.15,48			C.
	Bessel xx. 588....	21,7	35,5	49,1	3,7	17,2	31,0	45,1	20.23.3,33				3,39			20.23.30,32			B.
	(a)B.A.C. 7102.....	34,1	48,0	2,9	17,5	32,0	46,0	0,9	20.27.17,35				17,40			20.27.44,03			C.
	H. C. 39844.....	35,9	50,0	3,6	17,8	31,7	45,2	59,4	20.31.17,66				17,72			20.31.44,65			B.
	H. C. 40115.....	28,0	42,5	56,7	11,0	25,4	39,7	53,9	20.39.11,02				11,08			20.39.37,71			C.
	Bessel xx. 1114....	6,0	19,8	33,4	47,8	2,0	15,4	29,3	20.42.47,67				47,73			20.43.14,66			B.
	B.A.C. 7312.....	15,8	29,9	43,5	58,0	12,0	26,1	40,1	20.55.57,92				57,98			20.56.24,91			B.
	H. C. 40877.....	5,7	19,8	34,2	48,8	3,1	17,7	31,9	20.58.48,75				48,80			20.59.15,73			B.
Oct. 3	B.A.C. 7352.....	14,2	28,0	41,9	56,0	10,1	24,0	37,8	21.2.56,00				56,06			21.3.22,99			B.
	Bessel XXI. 188....	50,9	4,9	18,6	32,8	46,8	0,2	14,0	21.8.32,60				32,66			21.8.59,59			B.
	H. C. 41483.....	50,6	4,3	18,2	32,3	46,3	0,1	14,2	21.13.32,28				32,34			21.13.59,27			B.
	β Aquarii.....	31,4	44,8	58,1	12,0	25,6	39,0	52,6	21.23.11,93				12,01	26,99		21.23.38,94			B.
	(l)Bessel XXI. 828....	21,8	35,3	48,7	2,9	16,7	30,1	44,5	21.34.2,86				2,80			21.34.29,73			B.
	(m)Bessel XXI. 1253..	....	41,3	54,9	8,9	22,9	36,7	....	21.53.8,94				9,00			21.53.35,93			B.
	α Aquarii.....	57,0	10,3	23,9	37,1	50,9	4,1	17,7	21.57.37,29				37,38	26,91		21.58.4,31			B.
	Neptune.....	46,2	0,0	13,8	27,7	41,1	54,8	8,7	22.18.27,47				27,54			22.18.54,47			B.
	(n) α Capricorni.....	34,4	48,2	1,7	15,9	29,7	43,2	57,0	20.9.15,73				15,79	26,90	-0,07	20.9.42,65			B.
	H. C. 39210.....	43,8	57,3	11,5	25,4	39,7	53,3	7,3	20.16.25,47				25,53			20.16.52,39			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, -40",362, -26",877, -13",616, +0",065, +13",537, +26",890, +40",362.

(a) The correction -0",30 has been applied to C's apparent R.A. for difference of personal equations of B and C. (b) Very faint. (c) The times by B have been increased 20". (d) 'Preceding 60 Aquarii and of less N.P.D.' (e) 'Two preceded, one of greater and the other of less N.P.D.' (f) Extremely faint. The intervals are discordant. (g) Pretty steady during the whole time: wire II not satisfactory. (h) Another of the 9th Mag. and of less N.P.D. preceded about 30". (i) 'The only star visible in the field.' (k) Disturbance by noise, and the star very faint. Wire VII appears to be 1" in defect. 'One of the same Mag. and greater N.P.D. followed 30".' (l) The south-preceding of two equal: very faint. The intervals are very irregular: wires II and IV have each been increased 1" conjecturally. (m) The north-preceding of a coarsely double star. (n) High wind and clouds all the evening.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		"	"	"		s.	s.	s.	
Oct. 3	(a) B.A.C. 7039.....	21,8	36,6	51,2	6,1	21,1	35,8	50,4	20.19.6,15	-0,4	+2,5	+0,3	6,18		-0,07	20.19.33,04	B.
	(b) H. C. 39471.....	10,0	24,9	39,2	54,6	9,8	24,2	39,0	20.22.54,53				54,56			20.23.21,42	B.
	B.A.C. 7097.....	52,8	6,8	20,4	34,9	49,1	3,0	17,0	20.26.34,86				34,92			20.27.1,78	B.
	H. C. 39854.....	3,5	17,8	32,0	46,2	0,8	14,9	29,0	20.31.46,32				46,38			20.32.13,24	B.
	H. C. 40019.....	3,1	17,0	30,5	44,9	58,9	12,4	26,3	20.35.44,73				44,79			20.36.11,65	B.
	(c) B.A.C. 7195.....	20,0	....	....	2,9	17,8	32,1	46,8	20.39.3,09				3,13			20.39.29,99	B.
	Bessel xx. 1157...	4,8	18,8	32,3	46,8	0,8	14,2	28,2	20.44.46,56				46,62			20.45.13,48	B.
	(c) H. C. 40863.....	35,1	49,1	2,6	16,9	....	44,2	58,1	20.58.16,65				16,71			20.58.43,57	B.
	H. C. 40994.....	38,1	52,2	6,1	20,2	34,2	48,1	2,1	21.1.20,14				20,19			21.1.47,05	B.
	(c) H. C. 41118.....	....	57,0	10,8	24,5	37,9	51,1	....	21.4.24,26				24,32			21.4.51,18	B.
	(c) H. C. 41400.....	46,3	0,2	14,0	....	42,0	55,7	9,7	21.11.27,99				28,05			21.11.54,91	B.
	Neptune.....	42,1	55,4	9,0	23,1	37,0	50,3	4,2	22.18.23,01				23,08			22.18.49,94	B.
	a Pegasi.....	8,9	23,0	36,7	50,9	4,8	18,6	32,2	22.56.50,72				50,83	26,70		22.57.17,68	B.
	a Andromedæ....	26,1	41,2	56,6	12,0	27,3	42,4	57,9	0.0.11,93				12,07	26,95		0.0.33,92	B.
Oct. 6	Polaris SP.....	....	26,0	....	36,9	19,0	49,5	29,5	13.5.37,90				34,99		0,13		B.
Oct. 8	(e)(f) β Aquilæ.....	....	....	14,6	28,5	41,7	55,4	9,0	19.47.28,31				28,40	(27,31)	-0,11	19.47.55,60	C.
	(f) α Capricorni.....	33,4	47,8	1,4	15,3	....	....	....	20.9.15,20				15,26	(27,35)		20.9.42,46	C.
	B.A.C. 7209.....	38,7	52,9	7,0	20,9	35,7	49,7	3,9	20.40.21,25				15,23	27,38		20.9.42,76	B.
	(f) H. C. 40386.....	2,1	16,0	30,0	45,0	59,2	13,1	27,0	20.46.44,63				21,31			20.40.48,83	B.
	Bessel xx. 1278...	39,9	53,5	7,1	21,0	35,0	48,8	2,3	20.49.21,08				44,69			20.47.11,88	C.
	(f) Bessel xx. 1491...	12,4	26,1	40,0	54,0	8,0	21,9	35,7	20.57.54,01				21,14			20.49.48,66	B.
	(c) Bessel xx. 1568...	....	....	36,0	....	3,9	....	31,8	21.0.50,01				54,07			20.58.21,26	C.
	(c) B.A.C. 7400.....	19,7	33,9	48,1	....	....	....	46,5	21.12.2,92				50,07			21.1.17,59	B.
	(c) Bessel xxi. 418...	6,0	19,6	33,3	47,2	1,0	15,0	28,9	21.17.47,29				2,97			21.12.30,49	B.
	(g) β Aquarii.....	30,8	44,1	57,5	11,2	24,9	38,3	51,9	21.23.11,24				47,35	27,60		21.18.14,87	B.
	(h) Metis.....	....	56,4	12,2	26,3	40,7	55,6	10,2	21.48.26,33				11,32			21.23.38,84	B.
	a Aquarii.....	56,2	9,9	23,0	36,8	50,1	3,4	17,0	21.57.36,63				26,38			21.48.53,90	B.
	Neptune.....	19,3	33,2	46,7	0,8	14,5	27,9	41,6	22.18.0,57				36,72	27,51		21.58.4,24	B.
	Bessel xxii. 493..	17,3	30,9	44,3	58,0	11,9	25,2	38,9	22.22.58,07				0,64			22.18.28,16	B.
	Bessel xxii. 556..	17,8	31,1	45,0	59,0	12,4	25,9	39,7	22.25.58,70				58,15			22.23.25,67	B.
	B.A.C. 7899.....	....	27,9	41,0	54,9	8,7	21,9	35,7	22.31.54,90				58,77			22.26.26,29	B.
	Bessel xxii. 735..	....	36,8	50,1	4,0	17,7	31,1	44,8	22.34.3,96				54,98			22.32.22,50	B.
	Bessel xxii. 816..	10,2	24,2	37,8	51,9	5,8	19,1	32,9	22.37.51,70				4,04			22.34.31,56	B.
	Bessel xxii. 881..	22,4	36,1	50,0	3,9	17,7	31,1	45,0	22.41.3,74				51,77			22.38.19,29	B.
	a Pegasi.....	....	22,1	35,9	50,0	4,0	17,8	31,2	22.56.49,89				3,80	27,50		22.41.31,32	B.
	a Andromedæ....	....	40,9	55,9	11,3	26,8	41,7	57,0	0.0.11,29				50,00	27,59		22.57.17,52	B.
Oct. 9	(i) H. C. 38290.....	9,1	....	38,1	52,7	....	20,0	....	19.55.52,14				11,43		-0,11	19.56.19,67	B.
	B.A.C. 6903.....	21,2	35,2	49,4	3,9	18,1	31,9	46,7	19.59.3,77				3,83			19.59.31,30	B.
	(k) H. C. 38740.....	50,8	5,2	18,7	....	48,5	....	17,0	20.5.33,76				33,81			20.6.1,28	B.
	(l) α Capricorni.....	33,8	47,5	1,0	15,0	29,0	43,4	56,3	20.9.15,14				15,20	27,39		20.9.42,67	B.
	β Capricorni.....	24,2	38,0	51,9	6,0	20,0	34,0	47,8	20.12.5,99				6,05			20.12.33,52	B.
	B.A.C. 7009.....	52,0	6,0	19,9	34,1	48,0	1,7	15,4	20.14.33,87				33,93			20.15.1,40	B.
	(m) H. C. 39425.....	58,8	12,7	26,7	40,3	54,9	8,8	23,4	20.21.40,80				40,86			20.22.8,33	B.
	(c)(n) H. C. 39567...	21,3	35,8	....	....	18,7	33,3	....	20.25.4,41				4,47			20.25.31,94	B.
	B.A.C. 7123.....	24,0	38,0	51,9	6,2	19,7	34,0	48,7	20.30.6,07				6,13			20.30.33,60	B.
	(o) H. C. 40115.....	27,2	41,2	55,0	10,2	24,1	38,2	52,3	20.39.9,74				9,80			20.39.37,27	B.
	(c) B.A.C. 7221.....	....	29,1	43,0	56,9	10,8	....	....	20.41.56,85				56,91			20.42.24,38	B.
	(f) β Aquarii.....	31,0	44,6	58,1	11,9	....	....	....	21.23.11,72				11,80	(27,11)		21.23.38,93	C.
	(p) Metis.....	....	....	....	....	25,0	38,4	52,0	21.23.11,38				11,46	27,45		21.23.38,92	B.
	(f) α Aquarii.....	56,2	9,8	23,1	36,8	....	....	....	21.57.23,34				23,39			21.48.50,85	B.
	(f) θ Aquarii.....	46,4	0,1	13,4	....	....	....	....	21.57.36,68				36,77	27,45		21.58.4,23	B.
	Neptune.....	15,1	28,9	42,6	56,5	10,2	23,8	37,3	22.8.27,22				37,13	(27,09)		22.8.54,42	C.
									22.8.26,79				26,86			22.8.54,32	B.
									22.17.56,34				56,41			22.18.23,87	B.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, -40°,362, -26°,877, -13°,616, +0°,065, +13°,537, +26°,890, +40°,362.

(a) One of Mag. 8 and following 10°, was noticed much lower in the field. (b) A star of Mag. 7 and greater N.P.D. follows. (c) Cloudy.
 (d) A star of Mag. 7.8 was much lower in the field. (e) Taken hurriedly: the shutters not fully open. (f) Correction -0°,33 applied to C's apparent R.A. for difference of personal equation of B and C. (See Introduction). (g) Flaring. (h) Two objects of the same R.A. followed. (i) Taken by mere guess, so very faint. (k) Very faint from haze. (l) Hazy. (m) Irregular intervals. (n) Invisible at times. A star somewhat brighter follows. (o) Faint at times. (p) Scarcely visible.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Oct. 9	(a)(b) Piscium.....	6,8	20,5	33,9	47,2	1,0	14,1	27,3	23. 18. 47,26	-0,4	+2,5	+0,3	47,35		-0,11	23. 19. 14,48			C.
	(a)φ Pegasi.....	42,0	56,1	10,2	....	....	....	....	23. 44. 24,48				24,60			23. 44. 51,72			C.
	α Andromedæ ....	....	....	....	24,0	38,2	52,1	6,6	23. 44. 23,94				24,06			23. 44. 51,51			B.
		25,7	40,8	55,9	11,2	26,9	41,9	57,0	0. 0. 11,34				11,48	27,54		0. 0. 38,93			B.
Oct. 10	β Aquilæ.....	48,0	1,2	14,8	28,2	42,0	55,4	9,0	19. 47. 28,37				28,45	27,22	-0,17	19. 47. 55,81			B.
	α² Capricorni.....	33,9	47,8	1,2	15,3	29,2	42,9	56,8	20. 9. 15,30				15,36	27,22		20. 9. 42,72			B.
	H. C. 39125.....	33,0	....	1,1	15,2	29,2	43,2	57,0	20. 14. 15,11				15,16			20. 14. 42,52			B.
	(c) H. C. 39259.....	....	9,4	24,2	38,1	53,0	7,7	....	20. 17. 38,48				38,53			20. 18. 5,89			B.
	H. C. 39603.....	13,2	26,4	40,3	54,9	9,0	22,8	36,3	20. 25. 54,70				54,75			20. 26. 22,11			B.
	(d) H. C. 39742.....	....	39,1	....	8,0	22,2	36,3	50,3	20. 29. 7,74				7,79			20. 29. 35,15			B.
	(e) H. C. 39926.....	....	44,8	58,7	13,8	27,8	42,0	....	20. 33. 13,42				13,47			20. 33. 40,83			B.
	(a)(f) Bessel xx. 1157	....	18,8	....	46,5	0,5	14,4	28,0	20. 44. 46,47				46,52			20. 45. 13,55			C.
	(a)(g) Bessel xx. 1303.	39,7	53,4	7,4	21,2	35,0	49,0	3,1	20. 50. 21,25				21,30			20. 50. 48,32			C.
	(a) H. C. 1394....	3,1	17,1	30,8	44,9	58,6	12,2	26,0	20. 53. 44,67				44,73			20. 54. 11,75			C.
	(a) H. C. 40803.....	9,4	23,3	36,9	51,2	5,3	19,1	33,0	20. 56. 51,17				51,22			20. 57. 18,24			C.
	(a) H. C. 41149.....	....	43,6	57,0	11,2	24,9	38,7	52,3	21. 5. 11,05				11,11			21. 5. 38,13			C.
	(a) Bessel xxi. 188...	51,0	4,8	18,7	32,5	46,6	0,7	14,0	21. 8. 32,61				32,66			21. 8. 59,68			C.
	(a)(h) Bessel xxi. 276.	25,6	39,4	53,0	7,2	21,1	....	....	21. 12. 7,09				7,14			21. 12. 34,16			C.
	(a) H. C. 41580.....	22,9	36,6	50,0	4,4	18,2	32,0	45,5	21. 16. 4,23				4,29			21. 16. 31,31			C.
	(a) B.A.C. 7451.....	21,2	35,3	48,7	2,4	16,3	30,1	44,0	21. 19. 2,57				2,63			21. 19. 29,65			C.
	(a)β Aquarii.....	31,2	44,8	58,1	11,8	....	....	....	21. 23. 11,80				11,87	(27,02)		21. 23. 38,89			C.
		....	....	....	....	25,1	38,7	52,0	21. 23. 11,51				11,58	27,31		21. 23. 38,93			B.
	Bessel xxi. 655....	17,2	30,9	44,8	58,8	12,6	26,1	40,2	21. 26. 58,66				58,72			21. 27. 26,07			B.
	γ Capricorni.....	36,0	50,1	4,1	18,2	32,5	46,2	0,4	21. 31. 18,22				18,28			21. 31. 45,63			B.
	H. C. 42307.....	53,0	6,6	20,1	34,0	47,8	1,0	14,9	21. 34. 33,91				33,97			21. 35. 1,32			B.
	δ Capricorni.....	35,1	49,0	2,9	17,1	31,3	45,1	59,3	21. 38. 17,12				17,17			21. 38. 44,52			B.
	Metis.....	37,3	....	7,0	....	36,2	52,0	....	21. 48. 21,78				21,83			21. 48. 49,18			B.
	α Aquarii.....	56,1	9,9	23,0	36,8	50,1	3,5	16,9	21. 57. 36,62				36,70	27,51		21. 58. 4,05			B.
	Neptune.....	11,6	25,0	38,5	52,8	6,2	20,0	33,9	22. 17. 52,57				52,63			22. 18. 19,97			B.
	α Pegasi.....	....	....	....	50,1	4,1	17,8	31,7	22. 56. 50,07				50,17	27,31		22. 57. 17,51			B.
	(a)ω² Aquarii.....	47,1	1,1	15,0	....	....	....	....	23. 34. 29,02				29,07			23. 34. 56,07			C.
		....	....	....	28,9	43,0	56,8	10,9	23. 34. 28,94				28,99			23. 34. 56,32			B.
	(a)(i)α Andromedæ.	26,0	40,9	56,1	....	....	....	....	0. 0. 11,59				11,72	27,30		0. 0. 39,05			B.
		....	....	....	11,9	27,2	42,4	57,5	0. 0. 11,81				11,94	(27,08)		0. 0. 38,94			C.
	(k)α Arietis.....	32,6	47,0	1,4	16,2	30,9	45,2	59,9	1. 58. 16,17				16,29	27,53		1. 58. 43,61			B.
Oct. 11	α² Capricorni.....	34,1	47,8	1,2	15,8	29,3	43,0	56,9	20. 9. 15,44				15,50	27,06	-0,05	20. 9. 42,66			B.
	π Capricorni.....	32,8	46,9	1,1	15,4	29,8	43,9	57,9	20. 18. 15,40				15,45			20. 18. 42,61			B.
	Bessel xx. 588 ...	21,6	35,1	49,1	3,1	17,3	30,3	44,3	20. 23. 2,97				3,02			20. 23. 30,18			B.
	(l) B.A.C. 7097.....	52,2	6,1	19,8	34,2	48,7	2,4	16,8	20. 26. 34,31				34,37			20. 27. 1,53			B.
	(l) B.A.C. 7116.....	29,8	....	59,9	14,8	29,2	43,6	57,9	20. 29. 14,38				14,43			20. 29. 41,59			B.
	Bessel xx. 844....	44,1	57,8	11,5	25,6	39,7	53,2	7,1	20. 32. 25,57				25,63			20. 32. 52,79			B.
	(a)(m) H. C. 40019....	....	17,0	30,8	44,3	....	12,3	26,4	20. 35. 44,61				44,66			20. 36. 11,49			C.
	(a)(n) H. C. 40125....	43,4	58,0	12,1	26,3	40,2	55,0	8,8	20. 39. 26,26				26,31			20. 39. 53,14			C.
	(a)(l) B.A.C. 7238....	....	18,5	32,3	46,1	....	....	....	20. 43. 46,18				46,24			20. 44. 13,07			C.
	(a) Bessel xx. 1291....	9,2	22,4	....	50,3	4,1	18,2	32,0	20. 49. 50,36				50,42			20. 50. 17,25			C.
	(a) H. C. 41483.....	50,7	4,4	18,6	32,7	46,6	....	14,2	21. 13. 32,51				32,56			21. 13. 59,39			C.
	(a)(l) Bessel xxi. 389.	51,0	4,8	18,3	32,4	46,3	0,1	14,4	21. 16. 32,47				32,53			21. 16. 59,36			C.
	α Pegasi.....	8,8	22,3	56,1	50,3	4,2	18,0	31,9	22. 56. 50,22				50,32	27,16		22. 57. 17,47			B.
	(a)α Andromedæ...	25,9	41,1	56,2	....	....	....	....	0. 0. 11,66				11,79	27,22		0. 0. 38,94			B.
		....	....	....	12,4	27,6	42,8	58,0	0. 0. 12,26				12,39	(26,62)		0. 0. 39,21			C.
Oct. 12	(a)(o)α Pegasi.....	8,2	22,2	36,1	50,2	....	....	....	22. 56. 50,02				50,12	27,35	0,01	22. 57. 17,38			B.
		....	....	....	....	4,6	18,3	32,3	22. 56. 50,61				50,71	(26,76)		22. 57. 17,64			C.
	(a)(p)60 Pegasi....	21,0	36,0	51,0	6,0	....	....	....	23. 4. 5,98				6,10			23. 4. 33,03			C.
		....	....	....	....	20,7	35,2	50,6	23. 4. 5,53				5,65			23. 4. 32,91			B.
	(a)(q)β¹ Aquarii.....	54,9	9,1	23,2	38,1	....	....	....	23. 14. 37,96				38,01			23. 15. 4,94			C.
		....	....	....	....	51,9	6,6	20,8	23. 14. 37,60				37,65			23. 15. 4,91			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, - 40°,362, - 26°,877, - 13°,616, + 0°,065, + 13°,537, + 26°,890, + 40°,362.

(a) Correction - 0,33 applied to C's Apparent R.A. for difference of personal equations of B and C. (b) 'Appeared to advance unequally.' (c) Wire IV has been increased 1". (d) Faint. (e) Difficult to observe, so very faint. (f) Too faint to be well observed. (g) Taken doubtfully. (h) Wires VI and VII were too discordant. (i) Flaring. (k) Much diffused. (l) Cloudy. (m) Wire I lost, and wire III uncertain, from clouds. Wire V, set down 53,6, has been rejected. (n) Vanishing at times. 'The south-following of two.' The other is B.A.C. 7202. (o) Advancing unequally. (p) Steady. (q) Considered by C to be of 3rd or 4th Mag.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"				h. m. s.	h. m. s.	h. m. s.	
Oct. 12	(a) α Andromedæ....	26,2	41,6	56,6	12,0	....	....	....	0. 0. 12,02	-0,4	+2,3	+0,3	12,15	(26,86)	0,01	0. 0. 39,08			C.
		....	....	....	....	27,0	42,2	57,3	0. 0. 11,61				11,74	27,27		0. 0. 39,00			B.
	α Arietis.....	32,9	47,2	1,9	16,8	31,3	45,9	0,0	1. 58. 16,57				16,69	27,15		1. 58. 43,95			B.
Oct. 13	(b) Metis.....	....	....	....	....	44,0	....	12,4	21. 48. 29,22				29,27		-0,09	21. 48. 56,41			B.
	(b)(c) Neptune.....	1,7	....	27,8	41,3	55,0	9,0	22,8	22. 17. 41,70				41,76			22. 18. 8,90			B.
	(b)(d) α Pegasi.....	8,8	22,3	36,2	50,3	4,2	18,1	....	22. 56. 50,26				50,36	27,10					B.
	(b) α Arietis.....	32,9	....	1,8	16,8	31,1	....	....	1. 58. 16,59				16,70	27,16					B.
Oct. 15	9 Aquarii.....	42,2	56,0	9,8	24,1	38,0	51,7	5,3	20. 52. 23,87		+2,2	+0,2	23,92		-0,01	20. 52. 51,02			B.
	(b) H. C. 40797.....	56,3	10,8	25,2	39,7	54,4	8,8	22,9	20. 56. 39,73				39,77			20. 57. 6,87			B.
	H. C. 40918.....	52,2	6,1	19,8	33,9	43,0	1,6	15,2	20. 59. 33,83				33,88			21. 0. 0,98			B.
	H. C. 41317.....	21,9	35,8	49,3	4,0	18,0	32,0	46,1	21. 9. 3,87				3,91			21. 9. 31,01			B.
	B.A.C. 7400.....	20,1	34,2	48,8	3,3	17,8	32,0	46,4	21. 12. 3,23				3,27			21. 12. 30,37			B.
	(b) Bessel XXI. 346...	....	9,2	22,8	36,9	....	4,2	17,8	21. 14. 36,71				36,76			21. 15. 3,86			B.
	(b) Bessel XXI. 422...	11,0	24,7	38,4	52,2	....	19,8	33,3	21. 17. 52,20				52,25			21. 18. 19,35			B.
	(b) β Aquarii.....	....	44,1	....	....	25,2	38,7	52,1	21. 23. 11,47				11,53	27,29		21. 23. 38,63			B.
	(e) Bessel XXI. 655...	17,3	30,9	44,9	....	12,7	....	40,0	21. 26. 58,68				58,73			21. 27. 25,83			B.
	H. C. 42121.....	....	29,0	43,1	58,0	12,1	26,6	41,0	21. 29. 57,80				57,84			21. 30. 24,94			B.
	(f) κ Capricorni.....	5,8	20,1	34,1	48,8	3,0	17,1	31,1	21. 33. 48,58				48,62			21. 34. 15,72			B.
	δ Capricorni.....	35,2	49,2	3,0	17,6	31,8	45,6	59,7	21. 38. 17,44				17,48			21. 38. 44,58			B.
	(g) Bessel XXI. 995...	26,9	40,3	....	7,7	21,2	35,0	48,3	21. 41. 7,60				7,66			21. 41. 34,76			B.
	(b) α Aquarii.....	....	10,2	23,3	37,1	50,7	4,0	17,3	21. 57. 37,04				37,11	27,04		21. 58. 4,21			B.
	Neptune.....	53,1	6,9	20,3	34,2	48,1	1,8	15,7	22. 17. 34,30				34,35			22. 18. 1,45			B.
	Bessel XXI. 617...	59,7	13,2	27,0	41,0	55,0	8,5	22,1	22. 28. 40,92				40,97			22. 29. 8,07			B.
	(b) Bessel XXI. 708...	19,8	....	....	....	15,1	28,8	42,4	22. 33. 1,16				1,21			22. 33. 28,31			B.
	(h) B.A.C. 7935.....	19,0	....	46,2	0,1	13,7	....	....	22. 37. 0,02				0,07			22. 37. 27,17			B.
	Bessel XXIII. 260...	43,2	56,9	10,2	24,2	38,0	51,7	5,0	23. 12. 24,17				24,22			23. 12. 51,32			B.
	Bessel XXIII. 328...	11,0	24,7	37,9	52,0	5,6	19,1	32,8	23. 15. 51,87				51,93			23. 16. 19,03			B.
	α Andromedæ.....	26,1	41,1	56,1	11,8	27,2	42,2	57,7	0. 0. 11,74				11,86	27,14		0. 0. 38,96			B.
	β Ceti.....	53,7	8,0	22,0	36,3	50,8	4,9	19,0	0. 35. 36,39				36,44	26,93		0. 36. 3,54			B.
	(i) Polaris SP.....	48,8	28,5	6,8	21,5	....	45,5	50,0	13. 5. 40,66				38,17			1. 6. 5,27			B.
Oct. 18	B.A.C. 7263.....	5,5	19,7	33,5	47,9	1,9	16,1	29,8	20. 48. 47,77				47,81		0,24	20. 49. 15,38			B.
	9 Aquarii.....	41,8	55,8	9,3	23,6	37,3	51,0	5,1	20. 52. 23,41				23,46			20. 52. 51,03			B.
	H. C. 40744.....	....	36,2	50,2	5,0	19,0	33,1	....	20. 55. 4,70				4,75			20. 55. 32,32			B.
	H. C. 40860.....	33,3	48,1	2,2	17,0	31,4	45,7	0,2	20. 58. 16,85				16,89			20. 58. 44,46			B.
	H. C. 41000.....	47,9	1,6	15,8	30,1	44,1	57,8	12,2	21. 1. 29,92				29,97			21. 1. 57,54			B.
	H. C. 41133.....	14,2	28,3	42,7	57,3	12,0	26,0	40,4	21. 4. 57,27				57,31			21. 5. 24,88			B.
	β Aquarii.....	30,4	44,1	57,7	11,2	25,0	38,3	51,9	21. 23. 11,23				11,29	27,49		21. 23. 38,86			B.
	H. C. 41984.....	57,8	12,0	26,0	40,4	55,0	9,1	23,2	21. 26. 40,50				40,54			21. 27. 8,11			B.
	(k) Bessel XXI. 752...	17,8	30,1	43,9	57,8	....	25,1	39,0	21. 30. 57,92				57,97			21. 31. 25,55			B.
	μ Capricorni.....	56,8	10,8	24,3	38,4	52,6	6,1	20,1	21. 44. 38,45				38,49			21. 45. 6,07			B.
	(l) Metis.....	34,3	....	2,1	17,1	32,2	....	0,9	21. 49. 17,32				17,36			21. 49. 44,94			B.
	α Aquarii.....	....	9,7	22,8	36,5	50,2	3,4	16,9	21. 57. 36,52				36,59	27,52		21. 58. 4,17			B.
	ϵ^2 Aquarii.....	26,4	40,2	54,0	8,0	21,9	35,2	49,2	22. 2. 7,85				7,90			22. 2. 35,48			B.
	H. C. 43363.....	20,1	34,2	48,1	2,2	16,3	30,3	44,2	22. 6. 2,20				2,24			22. 6. 29,82			B.
	Bessel XXI. 197...	....	56,7	10,0	23,9	38,0	51,4	....	22. 9. 24,00				24,05			22. 9. 51,63			B.
	H. C. 43567.....	....	29,7	43,2	57,2	11,4	25,0	....	22. 11. 57,30				57,34			22. 12. 24,92			B.
	Bessel XXI. 300...	40,1	54,1	7,9	21,9	35,9	49,3	3,1	22. 14. 21,75				21,80			22. 14. 49,38			B.
	Neptune.....	42,8	56,4	10,0	24,0	37,9	51,3	5,1	22. 17. 23,93				23,98			22. 17. 51,56			B.
	B.A.C. 8010.....	20,8	34,2	48,0	1,8	15,2	29,1	42,5	22. 52. 1,65				1,70			22. 52. 29,29			B.
	α Pegasi.....	....	....	35,8	49,9	3,8	17,4	31,3	22. 56. 49,76				49,85	27,57		22. 57. 17,44			B.
	(m) Bessel XXIII. 350...	6,9	20,1	33,8	47,7	1,2	14,5	27,8	23. 16. 47,43				47,49			23. 17. 15,08			B.
	Bessel XXIII. 399...	54,4	8,0	21,1	34,8	48,2	1,5	15,1	23. 19. 34,73				34,81			23. 20. 2,40			B.
	α Andromedæ.....	....	40,7	55,8	11,2	26,4	41,9	57,1	0. 0. 11,21				11,33	27,66		0. 0. 38,93			B.
	β Ceti.....	53,1	7,5	21,2	35,9	50,1	4,1	18,2	0. 35. 35,73				35,77	27,60		0. 36. 3,38			B.
	Polaris.....	42,0	15,5	50,0	31,8	11,0	43,5	28,0	1. 5. 31,69				34,41			1. 6. 2,02			B.
	α Arietis.....	32,4	47,1	1,5	16,0	30,9	45,1	59,9	1. 58. 16,13				16,24	27,67		1. 58. 43,85			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, -40',362, -26',877, -13',616, +0',065, +13',537, +26',890, +40',362.

(a) Correction -0',33 applied to C's Apparent R.A. for difference of personal equations of B and C. (b) Cloudy. (c) Very faint at times.
 (d) Very faint. (e) Clouds passing. (f) Flaring. Misty cloud constantly passing. (g) 'The brightest in the field.' (h) Very faint; dense cloud passing.
 (i) 'Pretty good.' Some of the intervals are discordant; wire IV, which was set down 6".21",5, has been decreased 1". (k) Faint.
 (l) The sky being very clear, the Planet could be satisfactorily observed though between the 10th and 11th Mag. No object near this. (m) 'The following and somewhat brighter of two.' Wire IV was written down 46,7.

RIGHT ASCENSIONS OBSERVED WITH THE TRANSIT IN THE YEAR 1849.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h.	m.	s.	
Oct. 18	(a) Polaris SP.....	43,0	....	56,0	33,5	17,0	51,0	31,0	13. 5. 36,30	-0,4	+2,2	+0,2	33,81		0,31	13. 6. 1,54			B.
Oct. 19	(b) Metis.....	49,7	....	18,0	....	47,8	....	....	21. 49. 32,10				32,14			21. 49. 59,98			B.
	α Aquarii.....	55,9	9,2	22,8	36,1	49,9	3,0	16,7	21. 57. 36,23				36,30	27,80		21. 58. 4,14			B.
	Neptune.....	39,2	53,1	6,5	20,4	34,4	47,9	1,8	22. 17. 20,47				20,52			22. 17. 48,36			B.
	Bessel xxii. 617..	58,8	12,3	26,0	40,1	54,0	7,3	21,1	22. 28. 39,94				39,99			22. 29. 7,84			B.
	(c) H. C. 44292.....	44,2	....	12,2	26,2	40,0	....	....	22. 31. 26,11				26,15			22. 31. 54,00			B.
	α Andromedæ....	24,9	40,6	55,6	11,0	26,2	41,6	56,8	0. 0. 10,95				11,07	27,91		0. 0. 38,94			B.
	β Ceti.....	52,9	7,1	21,0	35,7	49,9	3,9	18,1	0. 35. 35,51				35,55	27,82		0. 36. 3,43			B.
	(d) Polaris.....	37,8	15,6	47,0	....	11,5	....	....	1. 5. 30,35				33,07			1. 6. 0,96			B.
	α Arietis.....	....	46,7	1,1	15,9	30,6	45,0	59,6	1. 58. 15,86				15,97	27,95		1. 58. 43,87			B.
Oct. 25	α Ceti.....	15,2	28,7	41,8	55,5	9,1	22,5	35,8	2. 53. 55,51	-0,4	+1,9	+0,3	55,57	31,11	0,61				B.
Oct. 26	α Capricorni....	29,3	43,1	56,8	10,8	24,8	38,3	52,2	20. 9. 10,75				10,79	31,51	0,56	20. 9. 42,36			B.
	Bessel xx. 1068...	23,2	37,1	50,8	5,1	19,0	32,9	46,5	20. 41. 4,94				4,98			20. 41. 36,57			B.
	(e) B.A.C. 7237.....	55,7	10,2	25,1	40,0	55,0	9,2	24,1	20. 43. 39,90				39,92			20. 44. 11,51			B.
	(f) H. C. 40391.....	5,0	18,8	32,8	47,1	1,3	15,3	29,4	20. 46. 47,10				47,15			20. 47. 18,74			B.
	(g) Bessel xx. 1291...	3,7	17,5	31,0	45,3	59,2	....	26,4	20. 49. 45,14				45,18			20. 50. 16,77			B.
	(h) H. C. 40797.....	51,6	6,1	20,1	35,0	49,4	3,9	18,2	20. 56. 34,90				34,94			20. 57. 6,53			B.
	26 Capricorni....	26,1	40,7	54,8	9,3	24,0	38,1	52,7	21. 0. 9,39				9,43			21. 0. 41,02			B.
	H. C. 41078.....	46,1	1,0	15,1	30,1	44,3	59,1	13,1	21. 3. 29,82				29,86			21. 4. 1,45			B.
	(i) * N.P.D. 110°. 51'	45,0	59,5	13,4	28,1	43,0	57,2	11,2	21. 18. 28,20				28,24			21. 18. 59,83			B.
	H. C. 41941.....	7,7	21,2	35,3	49,6	4,1	18,1	32,1	21. 25. 49,73				49,78			21. 26. 21,38			B.
	B.A.C. 7517.....	45,7	59,8	13,5	27,8	41,9	55,3	9,2	21. 29. 27,60				27,64			21. 29. 59,24			B.
	B.A.C. 7608.....	....	....	34,8	49,1	3,2	17,7	31,8	21. 42. 49,06				49,10			21. 43. 20,70			B.
	B.A.C. 7630.....	35,1	49,0	3,1	17,1	31,1	45,1	58,8	21. 46. 17,04				17,08			21. 46. 48,69			B.
	(k) Metis.....	18,0	....	47,1	1,0	15,9	29,9	45,2	21. 52. 1,40				1,44			21. 52. 33,05			B.
	α Aquarii.....	52,1	5,2	18,9	32,3	46,0	59,1	12,7	21. 57. 32,33				32,39	31,61		21. 58. 4,00			B.
	H. C. 43204.....	50,3	4,6	18,8	32,8	46,7	0,8	14,1	22. 1. 32,58				32,62			22. 2. 4,23			B.
	H. C. 43363.....	16,1	30,0	43,9	58,2	12,1	26,1	40,2	22. 5. 58,09				58,13			22. 6. 29,75			B.
	(l) Neptune.....	18,0	....	44,4	58,3	12,2	25,9	39,4	22. 16. 58,46				58,51			22. 17. 30,13			B.
	(m) H. C. 44479.....	47,0	0,3	13,8	28,1	42,1	56,0	9,7	22. 36. 28,15				28,19			22. 36. 59,82			B.
	Bessel xxii. 881..	18,2	32,1	45,8	59,8	13,7	27,1	40,9	22. 40. 59,66				59,71			22. 41. 31,34			B.
	α Andromedæ....	21,2	36,4	51,8	7,1	22,6	37,7	53,0	0. 0. 7,12				7,22	31,72		0. 0. 38,88			B.
Oct. 27	Neptune.....	14,8	28,1	42,0	56,1	9,7	23,2	36,9	22. 16. 55,83				55,88		0,58	22. 17. 28,02			B.
	α Pegasi.....	....	17,1	31,1	45,1	59,2	13,1	26,9	22. 56. 45,14				45,22	32,11		22. 57. 17,37			B.
	α Andromedæ....	....	36,1	51,2	6,4	21,9	37,1	52,2	0. 0. 6,51				6,61	32,33		0. 0. 38,79			B.
	β Ceti.....	48,4	2,8	16,9	31,1	45,6	59,3	13,7	0. 35. 31,11				31,15	32,20		0. 36. 3,35			B.
	(d) Polaris.....	31,5	....	42,0	....	6,5	....	....	1. 5. 25,71				27,67			1. 5. 59,88			B.
	α Ceti.....	14,1	27,5	40,9	54,7	7,9	21,3	34,9	2. 53. 54,47				54,53	32,18		2. 54. 26,78			B.
	(n) Astræa.....	37,2	51,3	4,8	19,2	33,0	46,2	59,8	3. 28. 18,79				18,86			3. 28. 51,12			B.
	Aldebaran.....	4,8	18,4	32,3	46,8	0,8	14,8	28,7	4. 26. 46,66				46,74	32,24		4. 27. 19,02			B.
Oct. 29	(d) Bessel xxi. 1106..	....	....	8,8	23,0	....	50,1	4,1	21. 46. 22,74				22,78		0,60	21. 46. 56,10			B.
	α Aquarii.....	50,2	3,8	16,9	30,8	44,2	57,7	11,1	21. 57. 30,67				30,73	33,23		21. 58. 4,05			B.
	Neptune.....	9,2	23,0	36,8	50,4	4,2	18,0	31,8	22. 16. 50,48				50,52			22. 17. 23,86			B.
	58 Aquarii.....	28,7	42,2	56,1	10,1	23,8	37,1	51,1	22. 23. 9,87				9,91			22. 23. 43,25			B.
	Bessel xxii. 548..	51,8	5,1	18,6	32,2	46,0	59,1	12,7	22. 25. 32,21				32,26			22. 26. 5,60			B.
	Bessel xxii. 617..	....	6,8	20,3	34,4	48,2	1,9	....	22. 28. 34,32				34,36			22. 29. 7,70			B.
	Bessel xxii. 669..	14,2	28,1	41,7	55,3	8,9	22,1	35,7	22. 30. 55,14				55,19			22. 31. 28,53			B.
	Bessel xxii. 752..	52,1	6,0	19,4	33,2	47,1	0,6	14,0	22. 34. 33,20				33,24			22. 35. 6,58			B.
	Bessel xxii. 816..	4,6	18,1	31,8	45,8	59,7	13,1	27,0	22. 37. 45,73				45,77			22. 38. 19,11			B.
	α Pegasi.....	2,1	16,2	30,0	43,9	58,1	11,8	25,8	22. 56. 43,99				44,06	33,25		22. 57. 17,41			B.
	H. C. 45395.....	14,0	27,4	41,0	54,7	8,1	21,3	34,9	23. 3. 54,49				54,54			23. 4. 27,90			B.
	Bessel xxiii. 132..	12,8	26,1	39,6	53,4	7,0	20,2	34,0	23. 6. 53,30				53,35			23. 7. 26,71			B.
	Bessel xxiii. 209..	21,2	34,9	48,2	2,2	15,8	29,2	43,0	23. 10. 2,07				2,12			23. 10. 35,48			B.
	Bessel xxiii. 265..	49,1	2,8	16,3	30,2	44,1	57,8	11,4	23. 12. 30,24				30,28			23. 13. 3,64			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, - 40°,362, - 26°,877, - 13°,616, + 0°,065, + 13°,537, + 26°,890 + 40°,362.

(a) Tremulous. (b) Excessively faint, being clouded. Wires III and V have each been increased 2° from a consideration of the intervals. Perhaps, however, the discordance is due to the faintness of the object. (c) Very faint from cloud: bad night. (d) Cloudy. (e) Great motion. (f) The stars were badly defined this night. (g) Invisible at times from motion. (h) 'One of less N.P.D. follows.' (i) This appears to be Argelander Z. 255. N° 21. (k) Extremely faint. 'Another object of the same Mag. and less N.P.D. followed about 12°.' (l) Strong moonlight. (m) 'The brightest of four nearly equal.' (n) 'Of Mag. 9,10: easily observed.' Irregular intervals.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.	"	"	"	s.	s.	s.	
Oct. 29	Bessel xxiii. 328..	4,4	17,9	31,4	45,1	59,1	12,3	26,0	23. 15. 45,17	-0,4	+1,7	+0,3	45,22		0,60	23. 16. 18,58	B.		
	Bessel xxiii. 684..	49,2	2,9	16,6	30,2	44,1	57,7	11,0	23. 32. 30,24				30,29			23. 33. 3,66	B.		
	H. C. 46493.....	52,6	6,1	19,8	33,2	46,9	0,6	14,1	23. 35. 33,33				33,38			23. 36. 6,75	B.		
	Bessel xxiii. 973..	12,1	25,6	38,8	52,3	6,0	19,6	33,1	23. 46. 52,50				52,55			23. 47. 25,92	B.		
	Bessel xxiii. 1029.	51,4	5,1	18,2	31,9	45,9	59,1	12,7	23. 49. 32,04				32,09			23. 50. 5,46	B.		
	Bessel xxiii. 1078.	16,0	29,7	42,8	56,6	10,0	23,1	36,8	23. 51. 56,43				56,49			23. 52. 29,86	B.		
	H. C. 47143.....	40,0	53,1	6,9	20,5	34,1	47,7	0,9	23. 54. 20,45				20,50			23. 54. 53,87	B.		
	Bessel xxiii. 1170	....	....	2,1	16,1	29,7	43,0	56,8	23. 56. 15,97				16,02			23. 56. 49,40	B.
	α Andromedæ.....	19,4	34,9	50,0	5,3	20,8	35,9	51,1	0. 0. 5,34				5,43	33,49		0. 0. 38,81	B.		
	β Ceti .....	....	1,3	15,3	29,9	44,2	58,2	12,6	0. 35. 29,81				29,84	33,50		0. 36. 3,23	B.	
	(a) Polaris .....	....	8,5	42,5	26,0	5,5	....	18,5	1. 5. 24,20				25,74			1. 5. 59,15	B.
	(b) α Arietis .....	....	....	55,7	10,6	25,0	39,7	54,1	1. 58. 10,44				10,52	33,47		1. 58. 43,95	B.
	α Ceti	13,0	26,1	39,6	53,2	7,0	20,1	33,8	2. 53. 53,26				53,31	33,42		2. 54. 26,76	B.		
	(c) Astræa	1,7	15,2	....	41,8	56,4	9,6	23,2	3. 26. 42,35				42,41			3. 27. 15,88	B.	
Polaris SP.....	....	....	44,0	23,0	9,5	42,0	20,5	13. 5. 26,03				24,70			13. 5. 58,41	B.	
Oct. 30	Polaris SP.....	....	11,5	....	....	10,5	41,0	23,0	13. 5. 27,14				25,81		0,19	13. 5. 59,27	B.
Oct. 31	γ Aquilæ.....	....	5,2	19,0	32,9	46,6	0,0	13,9	19. 38. 32,77				32,83	33,50		19. 39. 6,34	B.	
	α Aquilæ.....	12,2	25,8	39,2	52,9	6,8	20,2	33,9	19. 42. 53,00				53,06	33,38		19. 43. 26,58	B.		
	H. C. 40918.....	45,4	59,2	13,0	27,0	41,0	54,8	8,6	20. 59. 27,00				27,04			21. 0. 0,57	B.		
	B.A.C. 7352.....	7,1	21,0	35,1	49,0	3,1	16,8	30,7	21. 2. 48,98				49,01			21. 3. 22,54	B.		
	β Aquarii.....	34,2	37,9	51,1	4,9	18,7	32,1	45,4	21. 23. 4,90				4,95	33,63		21. 23. 33,48	B.		
	(d) Bessel xxi. 906...	2,2	15,7	30,5	44,1	58,0	11,8	26,1	21. 36. 44,06				44,10			21. 37. 17,63	B.		
	B.A.C. 7608.....	4,2	18,1	32,2	47,0	1,2	15,3	29,8	21. 42. 46,83				46,87			21. 43. 20,40	B.		
	B.A.C. 7640.....	20,2	34,7	48,2	2,8	16,8	30,8	44,4	21. 49. 2,56				2,59			21. 49. 36,12	B.		
	(e) Metis.....	55,0	9,6	....	37,8	....	7,0	21,0	21. 54. 38,07				38,11			21. 55. 11,64	B.
	α Aquarii.....	50,1	3,2	16,6	30,2	44,0	57,2	10,8	21. 57. 30,30				30,36	33,57		21. 58. 3,89	B.		
	(f) H. C. 43204.....	....	2,3	....	....	44,9	58,9	13,2	22. 1. 30,83				30,87			22. 2. 4,41	B.
	Neptune	19,1	32,8	46,8	0,5	14,1	....	....	22. 16. 46,66				46,70			22. 17. 20,24	B.
	(g) Bessel xxii. 519..	....	38,8	52,5	....	20,2	....	47,7	22. 24. 6,42				6,47			22. 24. 40,01	B.
	Nov. 2	β Aquarii.....	23,9	37,2	50,9	4,3	18,1	31,6	45,0	21. 23. 4,43				4,48	34,07	0,27	21. 23. 38,62	B.	
Neptune		2,1	16,0	29,2	43,3	56,9	10,8	24,4	22. 16. 43,24				43,28			22. 17. 17,43	B.		
Bessel xxii. 1292..		0,3	14,2	27,9	42,1	56,1	9,3	23,1	23. 0. 41,85				41,89			23. 1. 16,05	B.		
Bessel xxiii. 76 ..		54,0	7,6	21,0	35,0	48,4	2,1	16,0	23. 4. 34,87				34,91			23. 5. 9,07	B.		
B.A.C. 8094.....		35,6	49,0	2,1	16,1	29,6	42,9	56,5	23. 7. 15,97				16,02			23. 7. 50,18	B.		
Bessel xxiii. 209..		20,7	34,1	47,8	1,7	14,9	28,6	42,1	23. 10. 1,41				1,46			23. 10. 35,62	B.		
Bessel xxiii. 265..		....	2,1	15,6	29,6	43,1	56,9	....	23. 12. 29,46				29,50			23. 13. 3,66	B.
Bessel xxiii. 328..		3,6	17,1	30,8	44,6	58,1	11,9	....	23. 15. 44,48				44,53			23. 16. 18,69	B.	
(h) α Andromedæ		18,7	34,2	49,1	4,8	19,8	35,0	50,2	0. 0. 4,54				4,63	34,26		0. 0. 38,80	B.		
H. C. 32		14,0	27,4	40,8	54,3	8,0	21,2	35,0	0. 2. 54,39				54,44			0. 3. 28,61	B.		
Bessel o. 109.....		29,1	42,8	56,0	9,8	23,3	36,6	50,0	0. 6. 9,66				9,71			0. 6. 43,88	B.		
H. C. 245.....		10,0	23,5	36,8	50,8	4,2	17,3	31,0	0. 8. 50,51				50,56			0. 9. 24,73	B.		
Bessel o. 212.....		13,3	26,8	39,9	53,8	7,1	20,8	34,0	0. 11. 53,67				53,73			0. 12. 27,90	B.		
Bessel o. 258.....		44,8	57,8	11,1	25,0	38,3	52,0	5,2	0. 14. 24,89				24,95			0. 14. 59,12	B.		
(i) α Arietis.....	26,1	40,8	54,9	9,8	24,5	39,0	53,2	1. 58. 9,76				9,84	34,17		1. 58. 44,03	B.			
Nov. 4	Polaris SP.....	....	7,5	40,5	22,5	9,0	41,0	....	13. 5. 23,90		+1,5	+1,3	24,58		0,08	13. 5. 59,33	B.
Nov. 5	B.A.C. 7312.....	7,3	21,3	35,3	49,8	4,1	18,0	32,1	20. 55. 49,70				49,80			20. 56. 24,58	B.		
	β Aquarii.....	23,1	36,8	50,1	3,8	17,3	30,9	44,2	21. 23. 3,74				3,84	34,67		21. 23. 38,62	B.		
	H. C. 42043.....	....	29,5	43,1	57,2	11,1	25,0	....	21. 27. 57,18				57,27			21. 28. 32,05	B.
	Bessel xxi. 739...	46,1	0,0	13,9	27,9	42,0	55,8	9,7	21. 30. 27,92				28,02			21. 31. 2,80	B.		
	H. C. 42245.....	19,8	33,9	48,1	2,2	16,4	30,5	44,8	21. 33. 2,24				2,34			21. 33. 37,12	B.		
	(b) H. C. 42407.....	50,8	4,8	19,0	33,2	....	....	15,9	21. 37. 33,27				33,37			21. 38. 8,15	B.
	Bessel xxi. 1023..	47,0	0,4	14,2	28,1	41,9	55,4	9,1	21. 42. 28,02				28,12			21. 43. 2,90	B.		
	Bessel xxi. 1126..	41,3	55,2	9,3	23,3	37,2	51,1	5,1	21. 47. 23,21				23,31			21. 47. 58,09	B.		
	(k) Metis.....	8,8	24,3	....	52,4	7,4	22,0	35,8	21. 57. 52,71				52,81			21. 58. 27,59	B.	

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.		
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.			
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.	"	"	"	s.	s.	s.		h.	m.	s.
Nov. 5	Bessel xxii. 259..	39,7	53,2	6,8	20,3	34,2	48,1	1,7	22	12	20,57	-0,4	+1,5	+1,3	20,67		0,08	22	12	55,45	B.
	Neptune	57,8	11,6	25,1	39,0	52,9	6,6	20,1	22	16	39,02				39,12			22	17	13,90	B.
	Bessel xxii. 816..	3,0	16,8	30,2	44,2	58,1	11,8	25,3	22	37	44,20				44,30			22	38	19,09	B.
	Bessel xxii. 894..	57,2	11,0	24,7	38,5	52,2	6,0	19,7	22	41	38,47				38,57			22	42	13,36	B.
	Bessel xxii. 933..	35,1	49,0	2,2	16,1	30,0	43,6	57,2	22	44	16,17				16,27			22	44	51,06	B.
	Bessel xxii. 1009.	57,1	11,0	24,8	38,8	53,1	6,8	20,6	22	47	38,89				38,99			22	48	13,78	B.
	(a) Bessel xxii. 1092.	59,2	12,9	26,7	40,7	54,4	8,0	21,7	22	51	40,51				40,61			22	52	15,40	B.
	B.A.C. 8274	34,1	47,8	1,0	15,0	23,5	42,0	55,6	23	40	14,86				14,96			23	40	49,75	B.
	30 Piscium	0,1	13,8	27,1	40,9	54,4	8,0	21,6	23	53	40,84				40,94			23	54	15,73	B.
	Bessel xxiii. 1170.	....	47,2	0,7	14,6	28,2	41,8	....	23	56	14,50				14,60			23	56	49,39	B.
	α Andromedæ.....	18,1	33,2	48,2	4,0	19,2	34,2	49,8	0	0	3,81				3,91	34,96		0	0	38,70	B.
	Bessel o. 64.....	37,7	51,0	4,3	18,1	31,8	45,0	58,7	0	3	18,09				18,19			0	3	52,98	B.
	Bessel o. 109.....	28,8	41,9	55,3	9,1	22,7	36,0	49,2	0	6	9,00				9,10			0	6	43,89	B.
	β Ceti.....	....	0,0	14,1	28,6	43,0	57,0	....	0	35	28,54				28,63	34,68		0	36	3,42	B.
	Polaris.....	28,5	9,0	....	26,0	....	40,0	18,5	1	5	23,80				23,41			1	5	58,20	B.
	(b) α Arietis.....	25,4	40,0	54,4	9,2	23,9	38,2	52,9	1	58	9,15				9,25	34,77		1	58	44,05	B.
	α Ceti.....	11,5	25,0	38,1	52,0	5,5	18,8	32,1	2	53	51,85				51,94	34,86		2	54	26,74	B.
	(c) Astræa. ....	....	9,8	23,2	36,9	50,4	4,7	17,8	3	20	36,99				37,09			3	21	11,89	B.
	(d) Polaris SP.	29,0	7,5	41,0	20,5	5,0	....	17,0	13	5	22,40				23,08		0,04	13	5	57,89	B.
	Nov. 6	(e) Metis.....	52,0	7,1	21,3	50,4	4,5	18,9	21	58	35,70				35,80			21	59	10,63	B.
Neptune		56,8	10,8	24,1	38,2	52,0	5,5	19,2	22	16	38,09				38,19			22	17	13,02	B.
Bessel xxii. 515 ..		....	27,1	40,4	54,7	8,2	21,9	....	22	23	54,46				54,56			22	24	29,39	B.
Bessel xxii. 599 ..		14,0	27,2	40,7	54,2	8,0	21,1	34,9	22	27	54,30				54,40			22	28	29,23	B.
64 Aquarii.....		5,3	19,2	32,8	46,9	0,6	14,1	27,8	22	30	46,67				46,77			22	31	21,60	B.
(f) H. C. 44479.....		43,1	57,1	10,8	24,9	38,8	52,7	6,3	22	36	24,81				24,91			22	36	59,74	B.
B.A.C. 7951. sp...		49,8	3,2	16,7	30,4	44,0	57,3	10,9	22	39	30,32				30,42			22	40	5,25	B.
Bessel xxii. 910 ..		4,1	17,8	31,2	45,1	58,9	12,3	26,0	22	42	45,06				45,16			22	43	19,99	B.
Bessel xxii. 1033 ..		....	19,6	32,8	46,7	0,2	13,7	....	22	48	46,60				46,70			22	49	21,53	B.
Bessel xxii. 1092 ..		59,2	13,0	26,4	40,6	54,2	8,0	21,4	22	51	40,40				40,50			22	52	15,33	B.
α Pegasi.....		0,8	14,8	28,2	42,5	56,3	10,1	24,0	22	56	42,38				42,48	34,73		22	57	17,31	B.
Bessel xxiii. 84....		23,1	36,8	50,1	4,2	18,0	31,8	45,0	23	5	4,14				4,24			23	5	39,07	B.
ψ ¹ Aquarii		45,2	59,0	12,7	26,5	40,1	53,8	7,5	23	7	26,40				26,50			23	8	1,33	B.
ψ ³ Aquarii		53,0	6,7	20,1	34,0	47,9	1,4	15,0	23	10	34,01				34,11			23	11	8,94	B.
Bessel xxiii. 328..		3,0	16,4	30,0	43,8	57,5	11,0	24,7	23	15	43,77				43,87			23	16	18,70	B.
Bessel xxiii. 381..		41,3	55,1	8,6	22,8	36,7	50,1	4,0	23	18	22,66				22,76			23	18	57,59	B.
Bessel xxiii. 442..		39,0	52,7	6,0	19,8	33,2	46,9	0,2	23	21	19,69				19,79			23	21	54,62	B.
Bessel xxiii. 763..		48,8	2,2	15,7	29,2	42,9	56,3	10,0	23	36	29,30				29,40			23	37	4,23	B.
B.A.C. 8274.....		34,1	47,8	1,0	15,0	28,4	42,0	55,5	23	40	14,83				14,93			23	40	49,76	B.
Bessel xxiii. 885..		12,8	26,0	39,4	53,0	6,7	19,9	33,3	23	42	53,01				53,11			23	43	27,94	B.
H. C. 46857.....		45,0	58,6	11,8	25,1	39,0	52,5	5,8	23	46	25,40				25,50			23	47	0,33	B.
Bessel xxiii. 1016.		11,7	25,1	38,7	52,2	6,0	19,4	32,9	23	48	52,28				52,38			23	49	27,21	B.
B.A.C. 8333.....		43,2	56,8	10,0	24,0	37,4	51,0	4,5	23	51	23,84				23,94			23	51	58,77	B.
(g) H. C. 47143....		38,2	52,0	5,1	18,9	32,8	46,0	....	23	54	18,94				19,04			23	54	53,87	B.
α Andromedæ.....		18,0	33,2	48,2	4,0	19,2	34,2	49,8	0	0	3,80				3,90	34,96		0	0	38,73	B.
Bessel o. 440.....		43,1	56,9	10,0	23,8	37,2	50,8	4,1	0	25	23,70				23,80			0	25	58,63	B.
H. C. 898.....		3,1	16,7	30,1	44,1	57,7	11,0	24,3	0	27	43,86				43,96			0	28	18,79	B.
B.A.C. 167.....		7,8	21,0	34,2	48,2	1,8	15,0	28,4	0	30	48,06				48,16			0	31	22,99	B.
β Ceti.....		46,0	0,1	14,0	28,4	42,9	56,9	11,1	0	35	28,49				28,58	34,73		0	36	3,41	B.
(h) Polaris.....		28,0	6,5	40,5	26,5	5,5	40,0	17,5	1	5	23,50				23,11			1	5	57,94	B.
(b) α Arietis.....		25,1	40,0	54,2	....	....	....	....	1	58	8,98				9,08	34,94		1	58	43,91	B.
(i) Astræa.		0,8	14,0	26,9	40,9	54,8	8,2	21,9	3	19	41,07				41,17			3	20	16,00	B.
(k) Aldebaran.....		2,2	16,2	30,2	44,3	58,4	12,2	26,5	4	26	44,29				44,39	34,78		4	27	19,22	B.
Nov. 10	β Aquarii.....	21,2	34,9	48,1	1,9	15,5	29,1	42,6	21	23	1,90		+2,6		2,04	36,39	0,39	21	23	38,31	B.
	μ Capricorni.....	47,5	1,4	15,2	29,1	43,2	57,0	11,0	21	44	29,20				29,32			21	45	5,60	B.
	Bessel xxi. 1126..	40,0	53,7	7,8	21,8	35,8	49,4	3,3	21	47	21,68				21,81			21	47	58,09	B.
	Bessel xxi. 1192..	12,1	25,7	39,0	....	6,3	20,9	34,8	21	49	53,14				53,27			21	50	29,55	B.
	(l) Bessel xxi. 1253..	17,8	30,7	45,1	59,0	13,0	26,8	40,2	21	52	58,95				59,08			21	53	35,36	B.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, -40°,362, -26°,877, -13°,616, +0°,065, +13°,537, +26°,890, +40°,362.

(a) 'One of less N.P.D. preceded.' (b) Cloudy. (c) Cirrus cloud about, but the observation was satisfactory. (d) Clouded at wire V.
 (e) 'Good. The 2d of two objects.' (f) 'Three others of less N.P.D. in the field.' (g) 'An equal star preceded.' (h) 'Very good.'
 (i) The Planet bright and observed satisfactorily. (k) Bad definition. (l) 'The north-preceding of two a little apart.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"				h. m. s.	h. m. s.	h. m. s.	
Nov. 10	α Aquarii.....	47,0	0,4	13,8	27,4	40,9	54,1	7,7	21.57.27,33	-0,4	+2,6	+1,3	27,48	36,31	0,39	21.58.3,76			B.
	(a) Metis.....	58,4	....	26,2	41,2	....	9,4	....	22.1.40,94				41,07			22.2.17,36			B.
	(b)(c) Neptune.....	52,7	6,3	20,0	....	47,3	1,2	15,0	22.16.33,76				33,89			22.17.10,18			B.
	(b)(d) H. C. 43862....	28,4	....	56,4	....	24,3	38,2	53,0	22.20.10,46				10,58			22.20.46,87			B.
	(e) Bessel xxii. 519..	22,9	36,2	50,0	3,7	17,2	30,8	44,0	22.24.3,54				3,68			22.24.39,97			B.
	Bessel xxii. 599..	12,0	25,2	38,8	52,7	6,1	19,7	33,2	22.27.52,53				52,67			22.28.28,96			B.
	Bessel xxii. 881..	....	27,2	40,5	54,8	8,4	22,1	....	22.40.54,60				54,73			22.41.31,03			B.
	λ Aquarii.....	29,3	42,9	56,1	10,0	23,8	37,2	50,9	22.44.10,02				10,15			22.44.46,45			B.
	α Pegasi.....	....	12,9	26,8	40,9	54,8	8,4	22,2	22.56.40,73				40,89	36,27		22.57.17,19			B.
	Bessel xxiii. 4....	3,1	16,7	29,8	43,6	57,0	10,7	24,0	23.0.43,56				43,70			23.1.20,00			B.
	Bessel xxiii. 56....	....	2,1	....	....	43,0	56,2	10,2	23.3.29,20				29,33			23.4.5,63			B.
	Bessel xxiii. 123..	32,6	46,2	0,0	14,0	27,8	41,2	55,0	23.6.13,83				13,96			23.6.50,27			B.
	Bessel xxiii. 179..	13,2	26,9	40,1	54,0	7,6	20,9	34,1	23.8.53,83				53,97			23.9.30,28			B.
	Bessel xxiii. 260..	33,7	47,2	0,9	14,7	28,2	41,9	55,6	23.12.14,60				14,73			23.12.51,04			B.
	Bessel xxiii. 961..	....	49,8	2,9	16,8	30,1	43,8	56,9	23.46.16,64				16,78			23.46.53,10			B.
	α Arietis.....	....	....	....	....	22,1	36,7	51,2	1.58.7,48				7,65	36,38		1.58.44,00			B.
	α Ceti.....	9,9	23,3	36,8	50,3	3,9	17,2	30,8	2.53.50,31				50,45	36,39		2.54.26,82			B.
	(f) Astræa.....	12,9	26,2	40,2	53,8	6,8	21,0	34,7	3.15.53,66				53,81			3.16.30,18			B.
	Aldebaran.....	0,8	14,9	28,7	42,9	56,8	10,9	24,8	4.26.42,83				42,99	36,25		4.27.19,38			B.
Nov. 11	Polaris SP.....	....	3,0	35,5	16,0	....	....	18,0	13.5.18,84			+2,4	19,13			13.5.56,05			B.
Nov. 13	β Aquarii.....	20,2	33,8	47,1	0,8	14,6	27,9	41,3	21.23.0,81				1,01	37,38	0,31	21.23.38,48			B.
	α Aquarii.....	45,9	59,2	12,7	26,3	39,8	52,9	6,6	21.57.26,20				26,40	37,35		21.58.3,88			B.
	(g) Metis.....	30,1	....	57,8	12,7	27,5	41,0	55,9	22.4.12,77				12,97			22.4.50,46			B.
	Bessel xxii. 493..	7,0	20,7	34,1	47,9	1,3	15,0	28,4	22.22.47,77				47,97			22.23.25,46			B.
	(h) Bessel xxii. 617..	48,8	2,3	....	....	....	....	11,2	22.28.29,94				30,14			22.29.7,63			B.
	α Andromedæ....	15,2	30,2	45,7	1,1	16,3	31,5	46,8	0.0.0,97				1,18	37,61		0.0.38,69			B.
	(h)(c) α Ceti.....	....	22,1	35,3	49,2	2,4	16,1	....	2.53.49,02				49,22	37,64		2.54.26,77			B.
Nov. 14	Neptune.....	50,9	4,5	18,0	32,1	45,9	59,3	13,0	22.16.31,95				32,15		0,28	22.17.9,92			B.
	Bessel xxii. 599..	10,7	24,0	37,3	51,1	4,9	18,1	31,6	22.27.51,10				51,30			22.28.29,07			B.
	(i) Bessel xxii. 659..	43,1	56,8	10,1	24,0	38,0	51,1	5,2	22.30.24,04				24,24			22.31.2,01			B.
	Bessel xxii. 723..	46,2	59,9	13,3	27,3	41,1	54,7	8,2	22.33.27,24				27,44			22.34.5,21			B.
	(k) H. C. 44479.....	39,8	53,7	7,6	21,5	....	49,2	3,2	22.36.21,50				21,69			22.36.59,47			B.
	α Pegasi.....	....	....	25,1	39,1	53,1	6,9	20,8	22.56.39,12				39,33	37,78		22.57.17,11			B.
	Bessel xxiii. 390..	11,6	25,0	38,4	52,0	5,7	18,9	32,3	23.18.51,98				52,18			23.19.29,96			B.
	Bessel xxiii. 467..	57,9	11,3	24,9	38,7	52,1	5,8	19,1	23.22.38,55				38,75			23.23.16,53			B.
	Bessel xxiii. 560..	4,1	17,7	31,0	44,7	57,2	11,6	25,0	23.26.44,47				44,67			23.27.22,45			B.
	Bessel xxiii. 783..	0,2	14,0	27,0	40,9	54,2	7,8	21,0	23.37.40,73				40,93			23.38.18,72			B.
	(l) H. C. 47225.....	....	31,9	45,2	58,8	12,2	25,6	....	23.56.58,74				58,94			23.57.36,73			B.
	α Andromedæ....	15,0	30,2	45,2	0,9	16,1	31,2	46,5	0.0.0,73				0,94	37,84		0.0.38,73			B.
	(m) Bessel o. 171....	49,2	2,8	16,1	29,8	43,2	56,8	10,0	0.9.29,70				29,91			0.10.7,70			B.
	(n) Bessel o. 485....	50,3	3,5	17,0	30,9	44,2	57,6	11,1	0.27.30,65				30,86			0.28.8,65			B.
	β Ceti.....	42,8	56,8	10,8	25,2	39,7	53,8	7,9	0.35.25,29				25,48	37,76		0.36.3,27			B.
	α Arietis.....	22,1	36,8	51,2	6,1	20,8	35,2	49,9	1.58.6,02				6,23	37,81		1.58.44,04			B.
	α Ceti.....	8,6	21,8	35,2	49,0	2,3	15,9	29,2	2.53.48,86				49,06	37,80		2.54.26,88			B.
	(o) Astræa.....	....	34,8	48,9	2,2	16,0	....	42,8	3.12.2,22				2,42			3.12.40,25			B.
Nov. 15	Polaris SP.....	....	0,8	32,8	....	....	....	11,5	13.5.15,16				15,45		0,08	13.5.53,36			B.
Nov. 16	B.A.C. 8214.....	28,2	42,0	55,3	9,2	22,8	36,3	40,9	23.27.9,10				9,30			23.27.47,25			B.
	Bessel xxiii. 642..	47,9	1,2	14,6	28,2	41,9	55,1	8,8	23.30.28,25				28,45			23.31.6,40			B.
	(b) Bessel xxiii. 808..	....	....	47,4	1,0	14,5	27,8	41,2	23.39.0,92				1,13			23.39.39,08			B.
	(b) H. C. 46672.....	....	56,9	....	24,2	37,8	51,3	....	23.41.24,14				24,34			23.42.2,29			B.
	(b) Bessel xxiii. 978..	22,8	36,2	49,7	3,3	16,9	....	....	23.47.3,30				3,50			23.47.41,45			B.
	Bessel xxiii. 1044.	23,0	36,8	50,1	3,8	17,2	30,7	44,1	23.50.3,67				3,87			23.50.41,82			B.
	(b) Bessel xxiii. 1111.	....	56,0	....	23,0	36,1	49,8	2,9	23.53.22,76				22,97			23.54.0,92			B.
	α Andromedæ....	....	....	....	0,8	16,0	31,0	46,2	0.0.0,56				0,77	37,99		0.0.38,72			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, -40',362, -26',877, -13',616, +0',065, +13',537, +26',890, +40',362.

(a) 'Pretty good; Mag. 10½.' (b) Cloudy. (c) Very faint. (d) Very faint. 'One of equal mag. and greater N.P.D. preceded about 15.'
 (e) 'Appeared oblong.' (f) 'Bright and easily observed; Mag. 9.' (g) Wire IV, which was written down 13,7, has been altered conjecturally.
 (h) Clouds from the S.W. (i) 'A star of Mag. 6,7 and less N.P.D. follows.' (k) 'Preceded by an equal star of less N.P.D.' (l) 'Another of less N.P.D. follows,' viz. H. C. 47238. (m) Clouded and faint at last. (n) 'One of less N.P.D. preceding.' (o) Clouded and faint at times, but observed satisfactorily.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h.	m.	s.	
Nov. 16	(a) H. C. 32	23,4	....	50,2	3,9	17,2	30,8	0. 2. 50,27		-0,4	+2,6	+2,4	50,47	..	0,08	0. 3. 28,42			B.
	Bessel o. 107	14,9	28,1	41,4	55,3	8,8	22,1	35,6	0. 5. 55,17				55,37	..		0. 6. 33,32			B.
	Polaris	59,5	29,5	18,5	59,5	31,5	....	1. 5. 15,70					15,92	..		1. 5. 53,87			B.
	α Arietis .....	....	51,2	6,0	20,7	35,0	49,8	1. 58. 5,96					6,17	37,87		1. 58. 44,13			B.
	(b) Astræa	26,4	39,9	52,3	7,2	20,3	33,8	48,0	3. 10. 6,84				7,04	..		3. 10. 45,00			B.
	Aldebaran .....	....	13,3	26,9	41,3	55,4	9,3	23,1	4. 26. 41,22				41,43	37,91		4. 27. 19,39			B.
	Rigel	1,2	14,8	28,2	41,9	55,6	9,1	22,7	5. 6. 41,93				42,13	38,05		5. 7. 20,10			B.
	Polaris SP. ....	....	....	....	13,5	1,0	....	12,0	13. 5. 16,30				16,59	..		13. 5. 54,58			B.
Nov. 17	(c) H. C. 42851	55,8	9,3	23,0	36,7	50,4	4,0	17,3	21. 50. 36,64				36,84	..	-0,41	21. 51. 14,48			B.
	α Aquarii	45,3	58,8	12,2	26,1	39,6	52,8	6,2	21. 57. 25,86				26,06	37,63					B.
	(d) Metis	14,5	....	40,7	56,3	....	23,2	37,8	22. 7. 55,69				55,89	..		22. 8. 33,52			B.
Nov. 21	(a)(e) Metis .....	....	....	....	53,0	....	....	34,7	22. 11. 52,65			+1,4	52,82	..	0,17	22. 12. 31,83			B.
	Neptune .....	....	....	....	35,2	49,1	2,8	16,2	22. 16. 35,21				35,37	..		22. 17. 14,38			B.
	Bessel xxii. 832 ..	7,1	20,1	33,8	47,3	1,0	14,3	27,8	22. 38. 47,35				47,51	..		22. 39. 26,52			B.
	Bessel xxii. 894 ..	53,0	6,7	20,3	34,0	48,0	1,6	15,2	22. 41. 34,11				34,27	..		22. 42. 13,28			B.
	Bessel xxii. 937 ..	35,5	48,9	2,2	16,0	29,8	42,9	56,4	22. 44. 15,96				16,12	..		22. 44. 55,13			B.
	(a) Bessel xxii. 1009 ..	....	....	20,3	34,7	48,3	2,2	16,0	22. 47. 34,42				34,58	..		22. 48. 13,59			B.
	α Pegasi .....	....	....	....	52,1	5,8	19,8	19,8	22. 56. 38,11				38,25	38,77		22. 57. 17,26			B.
	Bessel xxiii. 376 ..	28,6	42,2	55,6	9,1	23,0	36,2	49,8	23. 18. 9,22				9,38	..		23. 18. 48,39			B.
	(f) Bessel xxiii. 447 ..	....	6,9	20,2	34,2	47,8	1,2	....	23. 21. 34,06				34,22	..		23. 22. 13,23			B.
	Bessel xxiii. 559 ..	59,2	12,8	26,1	40,1	53,8	7,0	20,8	23. 26. 39,97				40,13	..		23. 27. 19,14			B.
	α Andromedæ ...	13,9	28,9	44,0	59,8	15,1	30,2	45,2	23. 59. 59,59				59,72	38,98		0. 0. 38,74			B.
	(a) Bessel o. 171	48,2	1,8	14,9	23,7	41,9	55,9	9,0	0. 9. 28,63				28,79	..		0. 10. 7,81			B.
	(g) β Ceti	41,7	55,9	9,8	24,2	....	....	....	0. 35. 24,23				24,39	38,79		0. 36. 3,41			B.
Nov. 24	β Aquarii	18,8	32,3	45,5	59,3	13,1	26,3	40,1	21. 22. 59,35			+1,5	59,51	38,73	-0,54	21. 23. 38,29			T.
	α Aquarii	44,2	57,9	11,2	25,0	38,4	51,5	5,1	21. 57. 24,76				24,92	38,68		21. 58. 3,69			T.
	(h) Bessel xxii. 243 ..	....	7,7	21,4	35,6	49,3	3,1	....	22. 11. 35,42				35,58	..		22. 12. 14,34			T.
	(i) Metis .....	....	38,0	....	6,0	20,3	....	48,4	22. 15. 6,09				6,26	..		22. 15. 44,92			T.
	(k) Neptune .....	....	....	....	53,2	6,9	20,2	20,2	22. 16. 39,30				39,46	..		22. 17. 18,22			T.
	Bessel xxii. 599 ..	....	....	....	50,2	3,9	17,0	30,9	22. 27. 50,18				50,34	..		22. 28. 29,10			T.
	Bessel xxii. 675 ..	18,8	32,2	45,7	59,6	13,2	26,8	40,2	22. 30. 59,50				59,66	..		22. 31. 38,41			T.
	B.A.C. 7935 .....	....	20,7	34,3	48,0	1,3	15,3	....	22. 36. 47,92				48,08	..		22. 37. 26,83			T.
	H. C. 44601	50,8	4,2	17,2	30,8	44,8	58,0	11,3	22. 39. 31,01				31,17	..		22. 40. 9,92			T.
	Bessel xxii. 910 ..	0,1	13,5	27,1	41,0	54,8	8,2	22,0	22. 42. 40,95				41,11	..		22. 43. 19,86			T.
	H. C. 44774	36,8	50,3	3,9	17,9	31,4	45,0	58,3	22. 45. 17,66				17,82	..		22. 45. 56,57			T.
	Bessel xxii. 1033 ..	1,8	15,2	29,0	42,4	56,1	9,3	22,9	22. 48. 42,38				42,54	..		22. 49. 21,28			T.
	(h) Bessel xxii. 1092 ..	....	9,1	22,3	36,5	50,3	4,0	....	22. 51. 36,44				36,60	..		22. 52. 15,34			T.
	Bessel xxii. 1196 ..	....	....	32,9	46,6	0,1	13,8	27,0	22. 55. 46,54				46,70	..		22. 56. 25,44			T.
	(m) Bessel xxii. 1258 ..	7,4	21,1	34,7	48,6	2,0	15,7	29,3	22. 58. 48,40				48,56	..		22. 59. 27,30			T.
	B.A.C. 8073	33,4	46,9	0,2	14,0	27,5	41,0	54,5	23. 2. 13,93				14,09	..		23. 2. 52,83			T.
	Bessel xxiii. 84 ..	19,2	33,0	46,3	0,2	14,0	27,4	41,1	23. 5. 0,17				0,33	..		23. 5. 39,07			T.
	χ Aquarii	44,0	57,5	11,0	24,9	38,2	52,0	5,4	23. 8. 24,71				24,87	..		23. 9. 3,61			T.
	Bessel xxiii. 239 ..	....	44,3	....	12,0	25,3	39,0	52,8	23. 11. 11,70				11,86	..		23. 11. 50,60			T.
	Bessel xxiii. 377 ..	28,4	42,3	55,9	9,9	23,5	37,2	51,0	23. 18. 9,75				9,91	..		23. 18. 48,65			T.
	(n) Bessel xxiii. 427 ..	54,4	8,2	22,0	35,7	49,7	3,0	16,5	23. 20. 35,64				35,80	..		23. 21. 14,54			T.
	α Andromedæ ...	13,4	29,0	44,1	59,6	15,1	30,2	45,2	23. 59. 59,52				59,66	39,01		0. 0. 38,38			T.
	β Ceti	41,8	56,1	9,9	24,4	38,8	52,5	7,1	0. 35. 24,36				24,53	38,63		0. 36. 3,24			T.
	α Ceti .....	....	....	34,3	48,2	1,8	15,1	23,5	2. 53. 48,10				48,25	38,66		2. 54. 26,90			T.
	(o) Aldebaran	58,7	12,4	26,5	41,1	54,9	8,9	22,9	4. 26. 40,77				40,91	38,55		4. 27. 19,53			T.
Nov. 28	(p) α Aquarii	46,1	59,9	13,0	26,4	40,0	53,4	7,0	21. 57. 26,55			-0,2	26,57	36,98	-0,81	21. 58. 3,50			T.
	Neptune	6,8	20,3	33,9	48,0	1,7	15,4	29,1	22. 16. 47,89				47,89	..		22. 17. 24,81			T.
	Bessel xxii. 599 ..	11,3	24,8	38,0	51,9	5,6	18,9	32,2	22. 27. 51,81				51,82	..		22. 28. 28,73			T.
	Bessel xxii. 708 ..	....	23,0	36,8	50,9	4,4	18,2	....	22. 32. 50,66				50,66	..		22. 33. 27,57			T.
	(g) Bessel xxii. 776 ..	....	18,0	....	45,0	58,9	12,8	26,0	22. 35. 45,18				45,19	..		22. 36. 22,10			T.
	H. C. 44564	14,1	27,4	41,0	55,0	8,4	22,0	35,4	22. 38. 54,76				54,77	..		22. 39. 31,68			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, - 40°,362, - 26°,877, - 13°,616, + 0°,065, + 13°,537, + 26°,890 + 40°,362.

(a) Cloudy. (b) 'Good.' (c) On the evening of Nov. 17 the Temperature was 35°. (d) Very faint and difficult to observe. No object near this. (e) Very faint. (f) 'A brighter of greater N.P.D. preceded about 15°.' (g) Very faint from dense cloud. (h) The noted times have been increased 1m. (i) Too faint for accurate observation. (k) Too short an interval after Metis: these wires satisfactory. (l) Corrected by +20°. (m) Disturbance by a carriage passing. The counting being 1s fast, all the wires have been diminished 1s. (n) All the wires, except wire I, have been increased 20°. (o) The temperature was decreasing fast on the night of Nov. 24. (p) No definition and great unsteadiness. (q) 'Accompanied by a brighter of less N.P.D.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Nov. 23	Bessel xxii. 894..	55,0	8,3	22,1	36,1	....	3,2	17,1	22.41.35,93	-0,4	+1,5	-0,2	35,94	....	-0,81	22.42.12,84			T.
	74 Aquarii	15,2	29,0	42,9	57,0	10,5	24,4	38,1	22.44.56,73				56,73	....		22.45.33,63			T.
	(a) Bessel xxii. 1092.	57,0	....	24,2	....	52,0	5,3	19,1	22.51.38,05				38,05	....		22.52.14,95			T.
	α Pegasi	58,2	12,2	26,1	40,2	54,0	7,6	21,7	22.56.40,00				40,04	36,89		22.57.16,94			T.
	Bessel xxiii. 51 ..	35,1	48,2	1,9	15,4	29,1	42,3	56,0	23.3.15,43				15,45	....		23.3.52,34			T.
	Bessel xxiii. 132 ..	8,8	22,2	35,6	49,5	3,1	16,4	30,0	23.6.49,38				49,39	....		23.7.26,28			T.
	H. C. 46918	28,1	41,4	54,6	8,2	22,0	35,1	48,7	23.48.8,30				8,82	....		23.48.45,19			T.
	(b) H. C. 47028	32,0	45,5	58,9	12,3	26,3	39,4	53,0	23.51.12,48				12,50	....		23.51.49,37			T.
	30 Piscium .....	....	11,3	24,9	38,6	52,2	5,6	....	23.53.38,52				38,53	....		23.54.15,40			T.
	Bessel xxiii. 1179.	47,9	1,2	14,3	28,2	41,9	55,1	8,4	23.56.28,15				28,17	....		23.57.5,04			T.
	α Andromedæ ...	15,8	31,1	46,2	1,8	17,0	32,2	47,3	0.0.1,63				1,69	36,93		0.0.38,55			T.
	Bessel o. 64 .....	....	....	2,2	16,0	29,5	42,9	56,4	0.3.15,92				15,94	....		0.3.52,80			T.
	H. C. 163	38,0	51,3	4,6	18,0	31,6	45,0	58,4	0.6.18,13				18,15	....		0.6.55,01			T.
	Bessel o. 179	9,0	22,5	35,9	49,5	3,0	16,5	29,7	0.9.49,45				49,48	....		0.10.26,34			T.
	Polaris .....	....	....	25,5	12,0	54,0	26,0	7,3	1.5.10,40				12,28	....					T.
	(c) α Arietis	23,4	38,0	52,4	7,2	22,0	36,1	51,0	1.58.7,16				7,21	36,81		1.58.44,01			T.
	(d) α Ceti	9,9	23,2	36,6	50,2	3,8	17,1	30,9	2.53.50,24				50,26	36,66		2.54.27,02			T.
Nov. 29	(e) H. C. 45758	23,1	36,5	50,0	3,5	17,0	30,4	43,9	23.14.3,49				3,51	....	-0,87	23.14.39,59			T.
	Bessel xxiii. 350 ..	58,0	11,5	24,9	38,8	52,3	5,9	19,1	23.16.38,65				38,66	....		23.17.14,74			T.
	Bessel xxiii. 404 ..	3,1	16,3	30,0	43,4	57,0	10,4	23,9	23.19.43,44				43,46	....		23.20.19,54			T.
	Bessel xxiii. 466 ..	56,6	10,0	23,6	37,1	50,8	4,1	17,9	23.22.37,16				37,17	....		23.23.13,25			T.
	Bessel xxiii. 862 ..	33,1	46,5	59,9	14,0	27,4	41,0	54,1	23.41.13,71				13,72	....		23.41.49,78			T.
	(f) Bessel xxiii. 907 ..	19,0	32,5	45,9	59,3	13,0	26,2	39,6	23.43.59,36				59,38	....		23.44.35,44			T.
	H. C. 46908	7,9	21,4	34,9	48,5	2,0	15,4	28,9	23.47.48,43				48,45	....		23.48.24,51			T.
	H. C. 47005	58,4	12,1	25,3	39,1	52,9	6,1	19,6	23.50.39,07				39,09	....		23.51.15,15			T.
	29 Piscium	51,2	4,5	18,1	31,7	45,4	58,8	12,2	23.53.31,70				31,72	....		23.54.7,78			T.
	Bessel xxiii. 1170.	32,1	45,9	59,2	12,9	26,4	40,0	53,8	23.56.12,90				12,91	....		23.56.48,96			T.
	α Andromedæ ...	16,8	32,0	47,0	2,5	17,9	33,0	48,2	0.0.2,48				2,54	36,06		0.0.38,59			T.
	Bessel o. 109	27,2	40,8	54,1	7,4	21,3	34,6	48,0	0.6.7,63				7,65	....		0.6.43,70			T.
	H. C. 245	8,1	21,3	34,8	48,3	2,0	15,2	28,7	0.8.48,35				48,37	....		0.9.24,42			T.
	(g) β Ceti	44,2	58,1	12,9	27,2	41,4	55,8	9,8	0.35.27,06				27,05	36,06		0.36.3,08			T.
	(h) α Arietis	24,2	39,0	53,2	8,1	22,8	37,2	51,7	1.58.8,03				8,08	35,94		1.58.44,06			T.
Dec. 1	(i) Neptune	15,3	29,3	43,1	57,1	10,8	....	38,2	22.16.56,87				57,11	....	-0,63	22.17.31,27			T.
	α Pegasi	0,9	14,7	28,5	42,6	56,6	10,2	24,1	22.56.42,51				42,74	34,15					T.
Dec. 4	α Aquarii	49,1	2,4	16,0	29,2	43,0	56,5	10,0	21.57.29,46				29,70	33,77	-0,30	21.58.3,62			T.
	Neptune	23,7	37,2	51,0	5,0	18,8	32,1	46,1	22.17.4,84				5,08	....		22.17.38,99			T.
	α Pegasi .....	....	14,9	28,8	42,9	57,0	10,4	24,4	22.56.42,79				43,02	33,83		22.57.16,92			T.
	B.A.C. 81	34,8	48,3	1,8	15,6	29,0	42,3	55,9	0.16.15,39				15,63	....		0.16.49,52			T.
	11 Ceti	58,9	12,1	25,5	39,1	52,7	6,1	19,4	0.21.39,12				39,36	....		0.22.13,25			T.
	Bessel o. 425	54,0	7,4	20,8	34,3	48,1	1,2	14,9	0.24.34,39				34,63	....		0.25.8,52			T.
	B.A.C. 147	36,1	49,6	3,0	16,7	30,1	43,5	57,0	0.27.16,57				16,81	....		0.27.50,70			T.
	H. C. 967 .....	....	17,0	30,3	44,0	57,6	10,9	....	0.29.43,96				44,20	....		0.30.18,09			T.
	Bessel o. 561	38,2	52,0	5,3	18,9	32,3	45,6	59,1	0.32.18,77				19,01	....		0.32.52,90			T.
	H. C. 1146	27,0	40,2	53,6	7,3	21,0	34,1	47,6	0.35.7,26				7,50	....		0.35.41,39			T.
	Bessel o. 662	58,0	11,3	24,6	38,2	51,8	5,0	18,4	0.37.38,19				38,43	....		0.38.12,32			T.
	(k) Bessel o. 797 .....	....	24,2	37,9	51,9	5,7	19,1	32,8	0.44.51,79				52,02	....		0.45.25,91			T.
	Bessel o. 851	30,0	43,4	57,0	10,9	24,7	38,1	51,5	0.48.10,80				11,03	....		0.48.44,91			T.
	Bessel o. 891	56,9	10,5	24,0	37,6	51,2	4,8	18,1	0.50.37,59				37,82	....		0.51.11,70			T.
	70 Piscium	4,2	18,0	31,3	45,0	58,6	12,0	25,6	0.53.44,96				45,19	....		0.54.19,07			T.
	Bessel o. 1023 ...	46,0	59,3	12,8	26,4	40,0	53,2	6,9	0.57.26,37				26,61	....		0.58.0,49			T.
	29 Ceti	1,2	14,6	28,0	41,8	55,3	8,5	22,1	0.59.41,64				41,88	....		1.0.15,76			T.
	Polaris .....	....	....	....	15,0	55,3	32,5	9,0	1.5.13,46				11,69	....					T.
	α Arietis	26,1	40,6	55,2	10,0	24,2	39,1	53,6	1.58.9,82				10,04	33,96		1.58.43,91			T.
	Aldebaran	3,5	17,7	31,3	45,7	59,8	13,5	27,4	4.26.45,56				45,79	33,77		4.27.19,63			T.
	Rigel	5,2	19,1	32,5	46,4	0,2	13,3	27,1	5.6.46,26				46,50	33,93		5.7.20,33			T.
	(l) β Tauri	29,3	44,8	59,8	15,3	30,5	45,8	1,2	5.16.15,24				15,46	38,89		5.16.49,28			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, -40",362, -26",877, -13",616, +0",065, +13",537, +26",890, +40",362.

(a) All the wires, except wire I, have been increased 10". (b) Wire VII has been corrected by -1", the counting being 1" in advance. (c) Counting 1" fast; correction applied. (d) Temp. 26". (e) Misty sky. (f) A faint star preceded. (g) The sky overcast, and the star scarcely visible. Wires I and II very doubtful. (h) Temp. 33". (i) Extremely faint. (k) The last four wires have been increased 20". (l) The Temperature on the night of Dec. 4 was at 30".

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h.	m.	s.	
Dec. 6	Neptune	30,7	44,4	57,8	11,9	25,7	39,4	52,9	22.17.11,83	-0,4	+2,3	+3,3	12,07		-0,20	22.17.45,01			T.
	α Pegasi	2,1	16,0	29,5	43,9	57,6	11,5	25,5	22.56.43,73				43,96	32,86		22.57.16,89			T.
	Bessel XXIII. 830. .	17,0	30,2	43,7	57,2	10,9	24,1	37,5	23.39.57,23				57,47			23.40.30,40			T.
	Bessel XXIII. 893. .	44,2	...	11,1	25,0	...	52,0	5,1	23.43.24,81				25,05			23.43.57,98			T.
	Bessel XXIII. 1013. .	8,1	22,1	35,2	49,0	2,5	15,9	29,5	23.48.48,90				49,14			23.49.22,07			T.
	(a) H. C. 47030	38,2	51,9	5,2	19,0	32,4	45,9	59,4	23.51.18,86				19,10			23.51.52,03			T.
	Bessel XXIII. 1130. .	...	42,1	55,2	8,9	22,9	36,1	...	23.54.9,04				9,28			23.54.42,21			T.
	(b) H. C. 47222 .....	...	29,0	42,2	56,1	9,4	23,0	...	23.56.55,94				56,18			23.57.29,11			T.
	α Andromedæ .....	...	34,7	50,0	5,3	20,8	35,8	51,2	0.0.5,33				5,55	32,95		0.0.38,47			T.
	Bessel o. 181 .....	...	37,2	50,5	4,3	17,8	31,3	...	0.10.4,22				4,46			0.10.37,38			T.
	Bessel o. 258	45,4	53,9	12,2	26,0	39,5	53,0	6,1	0.14.25,87				26,11			0.14.59,03			T.
	Bessel o. 312 .....	...	34,0	47,2	1,0	14,4	27,9	...	0.18.0,90				1,14			0.18.34,06			T.
	η Ceti	0,0	13,2	26,5	40,1	53,7	7,0	20,4	0.21.40,13				40,37			0.22.13,29			T.
	51 Piscium	25,4	39,2	52,6	6,5	20,1	33,4	46,9	0.24.6,30				6,53			0.24.39,45			T.
	Bessel o. 469	9,0	22,5	36,0	49,8	3,4	16,8	30,2	0.26.49,68				49,91			0.27.22,83			T.
	H. C. 967	4,2	17,9	31,3	45,1	58,6	12,0	25,4	0.29.44,93				45,17			0.30.18,09			T.
	Bessel o. 561	39,0	52,9	6,1	19,9	33,2	46,8	0,2	0.32.19,73				19,97			0.32.52,89			T.
	β Ceti	47,3	1,2	15,8	30,0	44,4	58,6	12,6	0.35.29,98				30,22	32,81		0.36.3,14			T.
	α Arietis	27,1	41,6	56,1	11,0	25,4	40,0	54,7	1.58.10,84				11,06	32,93		1.58.43,96			T.
	Astræa	37,2	51,8	5,1	...	32,8	46,2	59,9	2.53.18,84				19,07			2.53.51,97			T.
	Aldebaran	4,4	18,3	32,2	46,4	0,8	14,5	28,3	4.26.46,42				46,65	32,93		4.27.19,53			T.
	Rigel	6,3	20,2	33,5	47,5	1,0	14,4	28,1	5.6.47,29				47,53	32,93		5.7.20,41			T.
Dec. 8	(c) α Ceti .....	...	...	...	...	7,3	20,8	34,2	2.53.53,79				54,02	32,90	0,00	2.54.26,93			T.
	(d) Aldebaran	4,2	18,4	32,5	46,3	0,7	14,6	28,4	4.26.46,44				46,67	32,93		4.27.19,58			T.
	Rigel	6,7	20,1	33,4	47,3	1,1	14,5	28,1	5.6.47,32				47,57	32,91		5.7.20,48			T.
Dec. 15	(e) Aldebaran	6,0	19,8	33,5	48,1	2,1	16,0	30,1	4.26.47,95				48,21	31,43	0,46	4.27.19,76			T.
	Rigel	7,9	21,5	35,0	48,6	2,3	15,9	29,4	5.6.48,66				48,92	31,61		5.7.20,48			T.
	β Tauri .....	...	...	...	...	33,1	48,2	3,5	5.16.17,63				17,89	31,61		5.16.49,45			T.
	α Orionis	51,1	4,8	18,2	31,9	45,4	59,0	12,4	5.46.31,83				32,09	31,59		5.47.3,66			T.
Dec. 17	(f) Neptune	11,2	25,1	38,9	52,8	6,4	20,0	...	22.17.52,59				52,85		0,35	22.18.25,23			T.
	α Pegasi	2,5	16,3	30,1	44,2	58,2	11,9	25,6	22.56.44,11				44,37	32,31		22.57.16,75			T.
	α Andromedæ	19,9	35,0	50,2	5,5	21,0	36,0	51,2	0.0.5,54				5,80	32,54		0.0.38,20			T.
	β Ceti	47,3	1,8	15,9	30,2	44,7	58,4	12,7	0.35.30,14				30,40	32,50		0.36.2,80			T.
	α Arietis	27,3	42,0	56,4	11,2	26,0	40,3	55,0	1.58.11,17				11,43	32,48		1.58.43,86			T.
	(g) Astræa .....	...	8,1	...	...	49,2	3,0	16,3	2.47.35,55				35,81			2.48.8,25			T.
	α Ceti	13,8	27,2	40,6	54,2	7,9	21,3	34,7	2.53.54,24				54,50	32,39		2.54.26,94			T.
	Aldebaran	5,2	19,0	32,9	47,2	1,2	15,0	29,0	4.26.47,07				47,33	32,32		4.27.19,79			T.
	Rigel	7,2	20,5	34,1	47,4	1,5	15,0	28,6	5.6.47,76				48,02	32,53		5.7.20,49			T.
	α Orionis	50,3	4,0	17,2	31,0	44,7	58,3	11,8	5.46.31,04				31,30	32,41		5.47.3,79			T.
Dec. 19	Bessel o. 195	21,6	35,2	48,2	2,0	15,4	29,0	42,3	0.11.1,95				2,21		0,24	0.11.35,10			T.
	Bessel o. 246	56,2	9,8	23,0	36,8	50,1	3,5	17,2	0.13.36,66				36,92			0.14.9,81			T.
	Bessel o. 281	5,8	19,2	32,5	46,3	59,8	13,1	26,7	0.15.46,20				46,46			0.16.19,35			T.
	Bessel o. 320	2,0	15,4	28,9	42,8	56,3	9,8	23,2	0.18.42,63				42,88			0.19.15,77			T.
	Bessel o. 368 .....	...	...	22,2	35,8	50,0	3,2	16,7	0.21.36,13				36,39			0.22.9,28			T.
	Bessel o. 425	55,0	8,0	21,4	35,2	48,4	2,0	15,5	0.24.35,07				35,33			0.25.8,22			T.
	Bessel o. 485	54,9	8,3	21,9	35,3	49,0	2,2	15,5	0.27.35,30				35,56			0.28.8,45			T.
	15 Ceti	10,4	24,0	37,4	51,0	4,6	18,0	31,3	0.29.50,95				51,21			0.30.24,10			T.
	β Ceti	47,2	1,3	15,3	29,8	44,0	58,2	12,2	0.35.29,72				29,97	32,90		0.36.2,87			T.
	(h) Aldebaran	4,3	18,2	32,1	46,3	0,3	14,2	28,2	4.26.46,23				46,49	32,16		4.27.19,79			B.
	β Tauri .....	...	...	...	...	31,7	47,0	2,1	5.16.16,29				16,55	32,98		5.16.49,49			T.
Dec. 28	α Orionis	49,9	3,4	16,8	30,6	44,2	57,9	11,2	5.46.30,57				30,82	32,91		5.47.3,77			T.
	(i) Aldebaran	31,7	45,3	59,8	13,8	27,9	41,8	55,9	4.27.13,74				13,99	5,68	12,68	4.27.19,82			T.
	Rigel	33,1	46,9	0,2	13,9	28,0	41,3	54,7	5.7.14,01				14,26	6,33		5.7.20,47			T.
	β Tauri	57,1	12,3	27,4	43,1	58,2	13,4	28,9	5.16.42,91				43,15	6,44		5.16.49,46			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, $-40^s,362$, $-26^s,877$, $-13^s,616$, $+0^s,065$, $+13^s,537$, $+26^s,890$, $+40^s,362$.

(a) Correction -1^s applied, the counting being 1^s in advance of the clock. (b) 'Two stars of less N.P.D. followed.' (c) Corrected by -1^s .
 (d) The lamp was nearly out, and the wires were seen with great difficulty. (e) Very foggy, and great deposition of moisture. (f) Planet faint, but observed satisfactorily.
 (g) Extremely faint: observed with the utmost difficulty. (h) The difference of the personal equations of B and T given by this observation is $0^s,22$. (i) The sky had cleared shortly before. Between Dec. 19 and Dec. 28 the clock had been cleaned, and its rate was not yet adjusted.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	s.	
Dec. 28	(a) α Orionis	16,2	30,1	43,2	57,2	10,8	24,1	37,7	5 . 46 . 57,05	-0,4	+2,7	+3,2	57,29	6,52	12,68	5 . 47 . 3,92	T.
Dec. 29	α Andromedæ	36,0	51,1	6,2	21,7	37,0	52,2	7,4	0 . 0 . 21,65				21,90	16,27	12,62	0 . 0 . 38,16	T.
	(b) Polaris.....	....	54,0	27,3	14,5	54,5	27,0	....	1 . 5 . 11,46				10,67			1 . 5 . 27,56	T.
	(b) α Ceti.....	28,5	41,8	55,2	8,8	22,5	35,7	49,3	2 . 54 . 8,83				9,07	17,74		2 . 54 . 26,84	T.
	(b) α Orionis	3,7	17,2	30,4	44,6	58,1	11,6	25,2	5 . 46 . 44,40				44,64	19,17		5 . 47 . 3,95	T.
Dec. 30	(c) α Aquarii	54,9	8,4	21,7	35,3	48,9	2,2	15,4	21 . 57 . 35,26				35,51	27,71	12,63		T.
	α Herculis.....	....	....	....	....	22,7	36,6	50,3	17 . 7 . 8,71				8,95	37,81	12,64		T.

ILLUMINATION WEST. INTERVALS for an Equatorial star of wires I, II, III, IV, V, VI, VII, from the mean of the seven wires, - 40',362, - 26',877, - 13',616, + 0',065, + 13',537, + 26',890, + 40',362.

(a) Stars faint and unsteady this night. The Temperature in the Transit Room was 23°. (b) Very cloudy. (c) 'Very steady: good observation.'

MEAN RIGHT ASCENSIONS OF THE STARS

OBSERVED IN THE YEAR 1849,

AS DEDUCED FROM EACH DAY'S OBSERVATION:

WITH

THE CORRECTIONS

APPLIED TO

THE APPARENT RIGHT ASCENSIONS.

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
α ANDROMEDÆ.			Bessel o. 171.			51 Piscium.			β CETI continued.		
Jan. 2	+ 0,19	0. 0. 35,64	Nov. 14	- 2,86	0. 10. 4,84	Dec. 6	- 2,77	0. 24. 36,68	Sept. 26	- 2,83	0. 36. 0,51
Sept. 8	- 3,30	35,43	21	- 2,75	5,06				Oct. 15	- 2,91	0,63
11	- 3,32	35,44	Bessel o. 179.			Bessel o. 425.			18	- 2,91	0,47
17	- 3,37	35,57	Nov. 28			Dec. 4	- 2,71	0. 25. 5,81	19	- 2,91	0,52
19	- 3,39	35,45	- 2,74			19	- 2,54	5,68	27	- 2,89	0,46
21	- 3,40	35,45	Bessel o. 181.			Bessel o. 440.			29	- 2,88	0,35
26	- 3,42	35,56	Dec. 6			- 2,92			Nov. 5	- 2,85	0,57
Oct. 3	- 3,44	35,48	- 2,59			0. 10. 34,79			6	- 2,85	0,56
8	- 3,44	35,50	Bessel o. 195.			Dec. 6			14	- 2,78	0,49
9	- 3,44	35,49	Dec. 19			- 2,47			21	- 2,72	0,69
10	- 3,44	35,56	- 2,47			0. 11. 32,63			24	- 2,70	0,54
11	- 3,43	35,64	Bessel o. 212.			Dec. 6			29	- 2,65	0,43
12	- 3,43	35,61	Nov. 2			- 2,96			Dec. 6	- 2,57	0,57
15	- 3,42	35,54	- 2,96			0. 12. 24,94			17	- 2,44	0,36
18	- 3,41	35,52	Bessel o. 246.			Dec. 19			19	- 2,41	0,46
19	- 3,40	35,54	Dec. 19			- 2,48			Bessel o. 662.		
26	- 3,36	35,52	- 2,48			0. 14. 7,33			Dec. 4		
27	- 3,36	35,43	Bessel o. 258.			Nov. 2			- 2,79		
29	- 3,34	35,47	Nov. 2			- 2,95			Bessel o. 797.		
Nov. 2	- 3,31	35,49	Dec. 6			- 2,66			Dec. 4		
5	- 3,29	35,41	- 2,66			0. 14. 56,17			- 2,96		
6	- 3,28	35,45	Bessel o. 281.			Dec. 19			0. 51. 8,74		
13	- 3,21	35,48	Dec. 19			- 2,46			70 Piscium.		
14	- 3,20	35,53	- 2,46			0. 16. 16,89			Dec. 4		
16	- 3,18	35,54	B.A.C. 81.			Dec. 4			- 2,98		
21	- 5,12	35,62	Dec. 4			- 2,60			0. 54. 16,09		
24	- 3,09	35,29	- 2,60			0. 16. 46,92			Bessel o. 1023.		
28	- 3,04	35,51	Bessel o. 312.			Dec. 6			Dec. 4		
29	- 3,02	35,57	Dec. 6			- 2,70			- 2,92		
Dec. 6	- 2,92	35,55	- 2,70			0. 18. 31,36			0. 57. 57,57		
17	- 2,76	35,44	Bessel o. 320.			Dec. 6			29 Ceti.		
29	- 2,59	35,57	Dec. 19			- 2,59			Dec. 4		
H. C. 32.			- 2,59			0. 19. 13,18			- 2,92		
Nov. 2			Bessel o. 368.			Dec. 4			1. 0. 12,84		
16			Dec. 19			- 2,53			POLARIS.		
0. 3. 25,75			- 2,53			0. 22. 6,75			Mar. 17		
25,67			B.A.C. 167.			Dec. 4			+ 22,67		
Bessel o. 64.			Dec. 4			- 3,01			17		
Nov. 5			- 2,60			0. 31. 19,98			+ 22,80		
28			Bessel o. 561.			Dec. 4			+ 22,94		
0. 3. 50,13			Dec. 4			- 2,74			26		
50,17			- 2,74			- 2,71			+ 21,28		
Bessel o. 107.			H. C. 1146.			Dec. 4			20,22		
Nov. 16			Dec. 4			- 2,80			44,12		
- 2,79			- 2,80			0. 35. 38,59			43,30		
0. 6. 30,53			β CETI.			Sept. 8			+ 19,25		
Bessel o. 109.			Sept. 8			- 2,64			3		
Nov. 2			- 2,64			0. 36. 0,50			+ 18,83		
5			- 2,76			0,30			4		
29			- 2,66			0. 36. 0,50			+ 18,60		
0. 6. 40,99			Dec. 4			- 2,68			4		
41,03			- 2,66			0. 22. 10,57			+ 4,06		
41,05			10,63			10,63			44,02		
H. C. 163.			H. C. 245.			Nov. 2					
Nov. 28			Nov. 2			- 2,90					
- 2,69			29			- 2,66					
0. 6. 52,32						0. 9. 21,83					
H. C. 245.						21,76					
Nov. 2											
- 2,90											
29											
- 2,66											
0. 9. 21,83											
21,76											

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
POLARIS continued.			ρ^3 Eridani.			ALDEBARAN continued.			ι Tauri.		
May 31	+ 2,69	1. 4. 45,27	Jan. 15	- 0,31	2. 56. 51,58	Dec. 4	- 3,93	4. 27. 15,70	Feb. 10	- 0,75	4. 54. 4,50
31	+ 2,32	45,03	Bessel III. 90.			6	- 3,95	15,58	Rumker 1382.		
June 1	+ 1,94	45,04	Jan. 15 - 0,35 3. 5. 10,29			8	- 3,97	15,61	Feb. 12 - 0,68 4. 58. 10,82		
Sept. 17	- 72,54	41,75	40 Persei.			15	- 4,01	15,75	* N.P.D. 44°. 30'.		
19	- 73,22	43,03	Jan. 15 - 0,90 3. 32. 49,30			17	- 4,02	15,77	Feb. 10 - 1,08 4. 58. 28,46		
19	- 73,43	42,97	23 - 0,78 49,17			28	- 4,04	15,78	m Tauri.		
26	- 75,54	43,11	* N.P.D. 55°. 16'.			H. C. 8705.			Feb. 16 - 0,65 4. 58. 31,77		
27	- 75,61	42,81	Jan. 22 - 0,84 3. 36. 24,35			Feb. 10 - 0,62 4. 29. 21,74			27 - 0,45 31,82		
Oct. 15	- 77,19	(48,18)	Bessel III. 924.			H. C. 8798.			* N.P.D. 44°. 27'.		
18	- 77,30	44,72	Jan. 15 - 0,58 3. 47. 20,37			Jan. 2 - 1,03 4. 32. 25,86			Feb. 15 - 0,97 4. 58. 47,57		
18	- 77,32	44,22	17 - 0,56 20,39			* N.P.D. 69°. 42'.			H. C. 9656.		
19	- 77,33	43,63	22 - 0,49 20,37			Feb. 10 - 0,63 4. 32. 29,09			Feb. 10 - 1,09 5. 0. 48,31		
27	- 76,10	43,78	ω^2 Tauri.			τ Tauri.			12 - 1,05 48,54		
29	- 75,67	43,48	Jan. 17 - 0,86 4. 8. 25,22			Feb. 15 - 0,57 4. 33. 11,29			* N.P.D. 44°. 26'.		
29	- 75,58	42,83	22 - 0,79 25,14			H. C. 8806.			Feb. 15 - 0,98 5. 1. 12,86		
30	- 75,44	43,83	23 - 0,78 25,22			Feb. 12 - 0,85 4. 33. 27,15			Bessel v. 11.		
Nov. 4	- 74,55	44,78	Feb. 10 - 0,51 25,16			13 - 0,83 27,23			Feb. 16 - 0,72 5. 1. 41,63		
5	- 74,39	43,81	12 - 0,48 25,42			H. C. 9058.			108 Tauri.		
5	- 74,20	43,69	H. C. 8479.			Jan. 2 - 1,48 4. 42. 28,65			Feb. 12 - 0,77 5. 6. 23,54		
6	- 74,01	43,93	Feb. 10 - 0,40 4. 21. 47,02			22 - 1,31 28,72			15 - 0,72 23,47		
11	- 71,85	44,20	ρ Tauri.			Feb. 10 - 0,96 28,70			16 - 0,71 23,21		
15	- 70,59	42,77	Feb. 10 - 0,56 4. 25. 17,02			12 - 0,92 28,91			RIGEL.		
16	- 70,42	43,45	15 - 0,48 17,06			H. C. 9228.			Jan. 2 - 1,01 5. 7. 17,00		
16	- 70,23	44,35	B.A.C. 1417.			Jan. 2 - 1,07 4. 47. 14,22			5 - 1,00 16,97		
Dec. 29	- 42,69	44,81	Feb. 12 - 0,56 4. 26. 52,07			Feb. 10 - 0,71 14,32			6 - 0,99 16,79		
α ARIETIS.			ALDEBARAN.			B.A.C. 1542.			15 - 0,96 16,95		
Jan. 15	- 0,27	1. 58. 40,33	Jan. 2 - 0,98 4. 27. 15,56			Jan. 2 - 1,03 4. 52. 0,07			17 - 0,94 16,90		
31	- 0,02	40,43	15 - 0,90 15,75			Feb. 10 - 0,68 0,11			20 - 0,93 16,99		
Oct. 10	- 3,50	40,11	17 - 0,89 15,61			12 - 0,65 0,21			22 - 0,91 17,02		
12	- 3,52	40,43	22 - 0,84 15,63			16 - 0,58 0,01			23 - 0,90 16,99		
18	- 3,59	40,26	23 - 0,83 15,78			Bessel IV. 1199.			31 - 0,81 16,93		
19	- 3,60	40,27	26 - 0,79 15,66			Feb. 15 - 0,61 4. 53. 48,77			Feb. 8 - 0,70 17,00		
29	- 3,67	40,28	31 - 0,73 15,68			16 - 0,59 48,46			10 - 0,67 17,02		
Nov. 2	- 3,69	40,34	Oct. 27 - 3,35 15,67						Mar. 2 - 0,33 17,01		
5	- 3,70	40,35	Nov. 6 - 3,54 15,68						Nov. 16 - 3,16 16,94		
6	- 3,70	40,21	10 - 3,61 15,77						Dec. 4 - 3,41 16,92		
10	- 3,71	40,29	16 - 3,71 15,68						6 - 3,44 16,97		
14	- 3,72	40,32	24 - 3,83 15,70						8 - 3,46 17,02		
16	- 3,72	40,41							15 - 3,51 16,97		
28	- 3,70	40,31							17 - 3,53 16,96		
29	- 3,70	40,36							28 - 3,57 16,90		
Dec. 4	- 3,68	40,23									
6	- 3,67	40,29									
17	- 3,59	40,27									
α CETI.											
Jan. 6	- 0,48	2. 54. 23,55									
17	- 0,35	23,48									
23	- 0,27	23,46									
Oct. 27	- 3,44	23,54									
29	- 3,26	23,50									
Nov. 5	- 3,33	23,41									
10	- 3,37	23,45									
13	- 3,39	23,38									
14	- 3,39	23,49									
24	- 3,44	23,46									
28	- 3,45	23,57									
Dec. 8	- 3,45	23,48									
17	- 3,42	23,52									
29	- 3,34	23,50									

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
<i>n</i> Tauri.			Bessel v. 802.			χ^s Orionis.			16 Geminorum.		
Jan. 23	-1,03	5.10.12,57	Feb. 26	-0,58	5.31.34,62	Feb. 10	-0,99	5.54.31,25	Mar. 10	-0,64	6.18.57,93
Feb. 15	-0,74	12,62				15	-0,92	31,20			
* N.P.D. 67°.20'.			B.A.C. 1801.			16	-0,91	31,23	H. C. 12358.		
Feb. 10	-0,83	5.11.37,54	Feb. 16	-0,84	5.34.9,54	19	-0,85	31,14	Feb. 19	-0,96	6.19.55,45
12	-0,80	37,57				Bessel v. 1460.			ν Geminorum.		
16	-0,74	37,45	Rumker 1592.			Feb. 8	-0,96	5.57.0,53	Feb. 12	-1,05	6.19.59,87
B.A.C. 1656.			Feb. 8	-0,99	5.42.4,01	12	-0,91	0,47	15	-1,02	59,72
Mar. 2	-0,43	5.13.30,40	10	-0,97	3,88	16	-0,87	0,45	B.A.C. 2118.		
β TAURI.			15	-0,90	3,93	5 Geminorum.			Feb. 10	-1,04	6.23.54,04
Jan. 2	-1,21	5.16.45,00	16	-0,88	3,89	Feb. 8	-1,07	6.2.16,78	12	-1,02	54,07
5	-1,21	45,06	α ORIONIS.			12	-1,02	16,86	* N.P.D. 84°.56'.		
6	-1,21	45,18	Jan. 15	-1,09	5.46.59,90	16	-0,96	16,74	Feb. 19	-0,93	6.23.50,66
17	-1,17	45,04	20	-1,07	59,86	19	-0,92	16,78	22	-0,89	50,67
22	-1,14	45,11	22	-1,06	59,87	68 Orionis.			Bessel vi. 809.		
23	-1,13	45,02	23	-1,06	59,96	Feb. 15	-0,96	6.3.4,82	Feb. 12	-1,06	6.26.26,78
26	-1,10	45,14	26	-1,04	59,78	22	-0,86	4,88	19	-0,96	26,81
Feb. 8	-0,94	45,08	31	-1,01	59,86	B.A.C. 1994.			22	-0,92	26,97
10	-0,91	45,08	Feb. 8	-0,92	59,80	Feb. 8	-0,98	6.4.30,96	26	-0,85	27,08
12	-0,88	45,19	10	-0,90	59,79	12	-0,93	31,02	Bessel vi. 990.		
Mar. 2	-0,55	44,93	12	-0,87	59,86	16	-0,88	31,02	Feb. 15	-1,05	6.32.22,69
Dec. 4	-4,32	44,96	15	-0,83	59,97	19	-0,83	31,04	19	-0,99	22,74
15	-4,47	44,98	16	-0,82	59,89	8 Geminorum.			H. C. 12821.		
19	-4,50	44,99	17	-0,77	59,85	Feb. 8	-1,08	6.7.5,53	Feb. 26	-0,86	6.32.32,03
28	-4,56	44,90	22	-0,73	59,84	12	-1,03	5,57	Argelander 7143.		
* N.P.D. 67°.2'.			26	-0,66	59,96	16	-0,98	5,71	Feb. 8	-1,64	6.32.6,38
Feb. 15	-0,79	5.18.10,39	Dec. 15	-3,82	59,84	B.A.C. 2042.			26 Geminorum.		
16	-0,77	10,16	17	-3,85	59,94	Feb. 12	-1,06	6.12.36,57	Feb. 17	-1,02	6.33.36,80
H. C. 10208.			19	-3,87	59,90	19	-0,96	36,38	22	-0,96	36,72
Jan. 23	-1,08	5.19.18,52	28	-3,95	59,97	* N.P.D. 65°.48'.			H. C. 12887.		
Feb. 8	-0,89	18,64	29	-3,95	60,00	Feb. 15	-1,02	6.14.1,81	Feb. 19	-0,97	6.35.11,63
Rumker 1445.			η Leporis.			22	-0,92	1,94	* N.P.D. 66°.11'.		
Jan. 23	-1,09	5.21.(54,54)	Feb. 8	-0,93	5.49.31,71	B.A.C. 12217.			* N.P.D. 65°.43'.		
Feb. 8	-0,91	55,14	12	-0,87	31,72	Feb. 12	-1,07	6.16.6,21	Feb. 8	-1,17	6.36.24,15
10	-0,88	54,99	15	-0,82	31,83	19	-0,97	6,32	17	-1,08	24,23
12	-0,85	55,02	16	-0,81	31,88	* N.P.D. 65°.43'.			22	-1,01	24,11
119 Tauri.			Bessel v. 1284.			Feb. 12	-1,07	6.17.47,87			
Feb. 15	-0,77	5.23.22,06	Feb. 26	-0,67	5.50.15,82	19	-0,97	47,68			
16	-0,76	21,83	Rumker 1654.			22	-0,93	47,84			
120 Tauri.			Feb. 8	-1,03	5.52.16,81						
Feb. 8	-0,89	5.24.40,79	12	-0,98	16,96						
12	-0,84	40,98	16	-0,92	16,91						
16	-0,77	40,75	19	-0,87	16,74						
			Rumker 1656.								
			Feb. 8	-1,03	5.52.18,78						

Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
* N.P.D. 65°. 45'.			* N.P.D. 66°. 3'.			58 Geminorum.			Procyon continued.		
Feb. 26	-0,95	6. 37. 16,87	Feb. 22	-1,08	6. 56. 1,51	Mar. 28	-0,58	7. 14. 23,44	Mar. 3	-1,04	7. 31. 23,94
SIRIUS.			26	-1,02	1,71	* N.P.D. 65°. 54'.			5	-1,01	23,82
Jan. 5	-1,26	6. 38. 29,79	27	-1,01	1,22	Mar. 21			8	-0,97	23,86
22	-1,28	29,73	Mar. 3	-0,94	1,72	24	-0,67	57,95	17	-0,82	23,77
23	-1,28	29,65	5	-0,91	1,44	28	-0,60	57,69	24	-0,71	23,79
26	-1,26	29,63	* N.P.D. 65°. 52'.			H. C. 14722.			Apr. 3	-0,53	23,77
Feb. 10	-1,15	29,63	Feb. 26	-1,03	6. 58. 4,08	Mar. 5	-1,02	7. 26. 7,07	POLLUX.		
12	-1,12	29,52	Mar. 5	-0,92	3,86	28	-0,62	7,06	Jan. 2	-1,09	7. 36. 4,18
15	-1,08	29,61	17	-0,70	4,03	CASTOR.			26	-1,33	4,17
16	-1,07	29,68	Piazzi VI. 328.			Jan. 17	-1,32	7. 24. 57,59	31	-1,34	4,32
17	-1,05	29,61	Jan. 26	-1,31	6. 58. 40,31	20	-1,34	57,56	Feb. 13	-1,30	4,25
22	-0,98	29,74	Feb. 8	-1,24	40,33	26	-1,36	57,65	15	-1,28	4,13
27	-0,90	29,54	13	-1,19	40,19	31	-1,37	57,69	16	-1,27	4,27
Mar. 3	-0,83	29,65	17	-1,15	40,23	Feb. 8	-1,35	57,62	17	-1,26	4,25
May 4	+0,30	29,88	H. C. 13804.			10	-1,34	57,63	19	-1,25	4,24
11 Canis Majoris.			Feb. 22	-1,09	7. 0. 8,15	12	-1,32	57,68	20	-1,24	4,07
Feb. 19	-1,04	6. 39. 57,78	27	-1,02	8,16	15	-1,29	57,58	27	-1,16	4,16
26	-0,93	58,11	H. C. 13856.			16	-1,29	57,64	28	-1,14	4,08
Mar. 17	-0,57	57,83	Mar. 5	-0,93	7. 1. 19,30	17	-1,28	57,65	Mar. 3	-1,10	4,15
* N.P.D. 66°. 8'.			48 Geminorum.			19	-1,26	57,61	24	-0,75	4,08
Feb. 8	-1,18	6. 41. 27,78	Feb. 22	-1,10	7. 3. 15,74	22	-1,22	57,54	Apr. 3	-0,55	4,05
13	-1,14	27,59	26	-1,05	15,91	26	-1,17	57,51	79 Geminorum.		
17	-1,09	27,66	27	-1,04	15,73	27	-1,16	57,72	Mar. 5	-1,06	7. 36. 17,23
Bessel vi. 1351.			Mar. 3	-0,97	15,76	Mar. 3	-1,10	(57,21)	21	-0,80	17,10
Jan. 26	-1,27	6. 43. 54,62	5	-0,94	15,55	8	-1,02	57,47	H. C. 15112.		
Feb. 19	-1,05	54,56	Rumker 2152.			17	-0,85	57,48	Feb. 26	-1,16	7. 38. 28,87
26	-0,94	54,81	Feb. 22	-1,11	7. 6. 20,28	21	-0,78	57,48	Mar. 5	-1,07	28,94
27	-0,93	54,44	26	-1,06	20,31	24	-0,72	57,50	17	-0,88	28,93
H. C. 13279.			27	-1,04	20,28	Bessel vii. 835.			21	-0,81	28,81
Feb. 8	-1,22	6. 45. 30,19	Mar. 5	-0,95	20,11	Jan. 26	-1,38	7. 26. 51,73	82 Geminorum.		
15	-1,13	30,28	8	-0,90	20,13	Feb. 13	-1,30	51,72	Feb. 27	-0,94	7. 39. 31,88
Argelander 7375.			λ Geminorum.			Mar. 21	-0,78	51,72	Argelander 8331.		
Mar. 3	-1,23	6. 45. 39,16	Feb. 13	-1,18	7. 9. 24,68	Procyon.			Feb. 20	-1,64	7. 41. 0,48
17	-0,83	39,00	22	-1,09	24,72	Jan. 2	-1,07	7. 31. 23,72	Argelander 8357.		
H. C. 13313.			26	-1,02	24,85	20	-1,23	23,67	Feb. 28	-1,53	7. 42. 4,22
Feb. 26	-0,98	6. 46. 25,36	27	-1,04	20,28	22	-1,24	23,69	Mar. 5	-1,43	4,12
B.A.C. 2283.			Mar. 5	-0,94	24,78	23	-1,24	23,62	17	-1,13	4,23
Feb. 22	-1,06	6. 51. 31,35	8	-0,89	24,74	26	-1,25	23,76	21	-1,02	4,23
26	-1,00	31,26	H. C. 14350.			31	-1,26	23,57	84 Geminorum.		
27	-0,99	31,22	Feb. 27	-1,06	7. 15. 20,39	Feb. 8	-1,24	23,68	Feb. 20	-1,22	7. 44. 2,66
						12	-1,22	23,77	26	-1,18	2,57
						13	-1,21	23,69	Mar. 24	-0,78	2,50
						15	-1,19	23,73	28	-0,71	2,57
						16	-1,19	23,66			
						17	-1,18	23,69			
						19	-1,17	23,63			
						20	-1,16	23,75			
						22	-1,14	23,68			
						26	-1,09	23,71			
						27	-1,08	23,69			
						28	-1,07	23,84			

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
5 Cancri.			ϵ HYDRÆ continued.			α HYDRÆ continued.			Bessel x. 285.		
Jan. 31	-1,29	7.52.53,65	Feb. 13	-1,34	8.38.46,57	Apr. 17	-0,95	9.20.9,96	Apr. 17	-1,10	10.16.55,58
Feb. 13	-1,28	53,56	16	-1,33	46,65	20	-0,91	9,87	45 Leonis.		
20	-1,24	53,75	17	-1,33	46,53	26	-0,81	10,11	Apr. 17		
28	-1,16	53,68	19	-1,33	46,61	May 3	-0,71	10,03	-1,12	10.19.40,30	
Mar. 5	-1,11	53,59	26	-1,29	46,66	15	-0,54	10,07	Bessel x. 411.		
B.A.C. 2683.			27	-1,29	46,61	Bessel ix. 1176.			Apr. 17		
Feb. 13	-1,29	7.56.1,37	28	-1,28	46,56	REGULUS.			-1,16	10.23.9,40	
20	-1,24	1,30	Mar. 3	-1,26	46,81	Jan. 31	-1,18	10.0.19,38	Bessel x. 448.		
28	-1,16	1,35	5	-1,24	46,62	Feb. 8	-1,28	19,52	Apr. 17	-1,15	10.25.47,28
Mar. 5	-1,12	1,34	21	-1,06	46,57	13	-1,32	19,56	H. C. 20522.		
21	-0,88	1,36	24	-1,02	46,72	16	-1,34	19,46	Apr. 17		
B.A.C. 2759.			Apr. 5	-0,85	46,62	20	-1,37	19,66	-1,15	10.29.0,54	
Mar. 5	-1,15	8.5.32,30	7	-0,81	46,72	27	-1,38	19,55	H. C. 20614.		
17	-0,99	32,26	11	-0,75	46,68	28	-1,39	19,60	Apr. 17		
21	-0,92	32,20	17	-0,65	46,69	Mar. 2	-1,39	19,64	-1,21	10.32.30,62	
24	-0,87	32,19	20	-0,61	46,63	5	-1,38	19,49	Rumker 3312.		
28	-0,82	32,21	H. C. 17647.			21	-1,32	19,52	Apr. 17		
Rumker 2467.			Mar. 1	-1,44	8.48.35,50	24	-1,29	19,53	-1,19	10.36.28,64	
Feb. 27	-1,22	8.10.11,80	21	-1,22	35,32	Apr. 5	-1,17	19,52	38 Sextantis.		
Mar. 5	-1,16	11,70	24	-1,18	35,50	7	-1,15	19,56	Apr. 17		
21	-0,94	11,73	Apr. 11	-0,89	35,55	11	-1,10	19,56	-1,22	10.39.28,01	
24	-0,89	11,75	Bessel VIII. 1276.			17	-1,02	19,54	δ LEONIS.		
ϕ^s Cancri.			Apr. 7	-0,96	8.49.4,04	20	-0,98	19,59	Feb. 13	-1,17	11.6.4,35
Jan. 31	-1,33	8.17.38,74	Bessel ix. 235.			21	-0,97	19,65	26	-1,32	4,26
Mar. 24	-0,94	38,85	Mar. 10	-1,28	9.11.33,75	26	-0,90	19,60	Mar. 29	-1,39	4,20
Apr. 7	-0,68	38,57	Apr. 7	-0,95	33,83	May 3	-0,80	19,73	Apr. 7	-1,34	4,22
ψ^1 Cancri.			11	-0,89	33,86	Rumker 3103.			26	-1,16	4,30
Mar. 5	-1,19	8.17.40,52	Bessel ix. 269.			Apr. 17	-1,08	10.6.38,08	May 3	-1,09	4,31
17	-1,04	40,33	Mar. 10	-1,28	9.13.3,64	\ast N.P.D. 73°.51'.			4	-1,07	4,33
28	-0,85	40,44	31	-1,05	3,50	Apr. 20	-1,01	10.7.50,36	ξ Ursæ Majoris.		
Apr. 3	-0,75	40,58	Apr. 7	-0,95	3,49	23	-0,96	50,19	Apr. 7	-1,35	11.10.6,88
H. C. 16810.			17	-0,80	3,52	26	-0,92	50,33	55 Ursæ Majoris.		
Mar. 5	-1,20	8.25.49,04	α HYDRÆ.			Bessel x. 155.			Apr. 26	-1,15	11.10.53,21
21	-1,00	48,98	Jan. 15	-1,18	9.20.9,94	Apr. 17	-1,10	10.9.25,28	May 3	-1,04	53,21
Argelander 9165.			26	-1,34	9,89	γ Leonis.			ι Leonis.		
Feb. 28	-1,63	8.29.16,12	31	-1,40	10,03	Apr. 3	-1,20	10.11.38,55	Apr. 7	-1,41	11.16.3,05
Mar. 5	-1,55	16,08	Feb. 12	-1,47	10,03	20	-1,00	38,51			
21	-1,22	16,15	13	-1,48	9,97	23	-0,97	38,39			
Apr. 7	-0,78	15,94	16	-1,48	9,95	26	-0,88	38,47			
ϵ HYDRÆ.			19	-1,49	9,99	Rumker 3152.					
Jan. 31	-1,30	8.38.46,52	20	-1,49	10,02	Apr. 17	-1,09	10.13.27,83			
Feb. 12	-1,34	46,47	22	-1,48	10,10						
			26	-1,47	9,97						
			27	-1,47	10,04						
			28	-1,47	10,03						
			Mar. 5	-1,44	10,00						
			21	-1,31	10,00						
			24	-1,28	9,98						
			29	-1,22	10,11						
			Apr. 7	-1,10	9,97						
			11	-1,04	9,85						

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	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
83 Leonis.			SPICA continued.			ARCTURUS.			H. C. 26437.		
Apr. 7	-1,47	11.19.6,68	June 1	-1,75	13.17.14,68	Mar. 8	-0,99	14.8.46,48	June 2	-2,02	14.21.25,90
β LEONIS.			8	-1,70	14,68	Apr. 3	-1,43	46,76	11	-1,99	26,10
Mar. 17	-1,43	11.41.21,31	Rumker 4364.			5	-1,45	46,49	Bessel xiv. 424.		
21	-1,45	21,35	Apr. 26	-1,60	13.27.55,81	7	-1,48	46,62	Apr. 20	-1,89	14.23.10,31
Apr. 5	-1,43	21,33	May 4	-1,59	55,76	19	-1,58	46,54	May 4	-2,00	10,20
May 4	-1,24	21,33	12	-1,57	55,83	20	-1,59	46,60	Bessel xiv. 441.		
29	-0,98	21,30	15	-1,56	55,82	21	-1,60	46,58	June 11	-2,01	14.24.5,19
H. C. 22655.			84 Virginis.			26	-1,63	46,53	Bessel xiv. 451.		
Apr. 5	-1,45	11.55.49,00	Apr. 20	-1,69	13.35.28,73	May 4	-1,66	46,52	June 2	-2,02	14.24.30,47
α Virginis.			H. C. 25569.			7	-1,66	46,61	Bessel xiv. 439.		
May 3	-1,38	11.57.31,09	May 29	-1,79	13.46.32,59	15	-1,67	46,56	June 8	-2,09	14.24.5,22
4	-1,36	31,14	H. C. 25637.			22	-1,66	46,50	Bessel xiv. 493.		
γ Virginis.			Apr. 20	-1,60	13.48.45,80	23	-1,65	46,57	June 11	-2,03	14.26.59,96
May 15	-1,61	12.25.59,43	26	-1,67	45,62	31	-1,62	46,52	13	-2,02	60,27
β CORVI.			May 4	-1,64	45,78	June 8	-1,57	46,56	Bessel xiv. 498.		
Mar. 29	-1,94	12.26.27,97	June 8	-1,48	45,69	9	-1,57	46,37	Apr. 20	-1,89	14.27.14,89
Apr. 3	-1,95	27,91	B.A.C. 4666.			13	-1,54	46,39	Bessel xiv. 512.		
11	-1,97	28,02	June 11	-1,82	13.52.7,51	Bessel xiv. 193.			May 4	-2,04	14.28.5,28
May 3	-1,91	27,97	B.A.C. 4680.			June 2	-1,98	14.11.2,45	B.A.C. 4824.		
7	-1,88	28,07	June 11	-1,85	13.56.22,18	Bessel xiv. 220.			June 2	-2,03	14.28.14,01
γ Virginis.			B.A.C. 4683.			June 8	-1,93	14.12.14,15	Bessel xiv. 523.		
Apr. 7	-1,64	12.34.0,62	June 9	-1,96	13.57.3,44	Bessel xiv. 280.			June 9	-2,04	14.28.33,96
28 Virginis.			* N.P.D. 65°. 53'.			Apr. 26	-1,96	14.15.33,31	Bessel xiv. 553.		
May 15	-1,62	12.34.9,45	Apr. 21	-1,61	13.59.19,63	May 4	-2,01	33,07	June 8	-2,07	14.29.58,76
58 Virginis.			26	-1,64	19,60	June 2	-2,03	32,97	H. C. 26657.		
May 12	-1,82	13.9.32,92	May 4	-1,66	19,57	Bessel xiv. 283.			June 11	-2,01	14.29.59,72
15	-1,80	32,84	15	-1,65	19,53	Apr. 20	-1,91	14.15.39,39	B.A.C. 4837.		
SPICA.			97 Virginis.			26	-1,96	39,38	June 9	-2,04	14.30.53,69
Mar. 17	-1,57	13.17.14,62	June 8	-1,92	14.4.30,95	B.A.C. 4772.			13	-2,02	53,70
Apr. 3	-1,75	14,69	Bessel xiv. 87.			June 11	-1,98	14.16.34,31	B.A.C. 4794.		
11	-1,81	14,68	June 9	-1,97	14.5.38,25	Bessel xiv. 347.			June 9	-1,98	14.20.28,26
19	-1,84	14,85	Bessel xiv. 111,			June 11	-2,05	14.19.8,56			
20	-1,85	14,75	June 2	-1,99	14.7.16,24	Bessel xiv. 353.					
21	-1,85	14,61				June 8	-2,00	14.19.25,56			
26	-1,86	14,65				B.A.C. 4787.					
May 4	-1,86	14,66				Apr. 20	-1,92	14.19.34,66			
23	-1,80	14,68				26	-1,97	34,76			
31	-1,76	14,68									

Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
Bessel xiv. 593.			Bessel xiv. 780.			18 Libræ.			Bessel xv. 91.		
June 11	-2,09	14.32.17,18	June 2	-2,14	14.41.44,26	June 2	-2,13	14.50.43,89	June 9 11	-2,22 -2,22	15.5.57,93 57,86
Bessel xiv. 596.			α^2 LIBRÆ.			H. C. 27288.			B.A.C. 5027.		
Apr. 26	-2,00	14.32.36,44	Apr. 19	-1,93	14.42.32,07	June 11	-2,26	14.51.51,73	June 13	-2,43	15.7.58,11
Bessel xiv. 608.			26	-2,01	32,12	Bessel xiv. 986.			Bessel xv. 135.		
June 9	-2,06	14.33.9,98	May 3	-2,07	31,99	June 13	-2,13	14.52.19,00	June 9 11	-2,21 -2,21	15.8.13,08 13,21
H. C. 26730.			4	-2,08	31,98	B.A.C. 4947.			H. C. 27825.		
June 2	-2,21	14.33.22,15	7	-2,10	32,00	June 13	-2,24	14.54.37,68	June 22	-2,33	15.9.10,42
Bessel xiv. 652.			15	-2,15	32,01	H. C. 27385.			Bessel xv. 185.		
June 11	-2,06	14.35.23,73	22	-2,17	32,15	June 11	-2,23	14.55.7,95	June 11	-2,24	15.10.43,55
Bessel xiv. 662.			31	-2,19	32,00	Bessel xiv. 1069.			Bessel xv. 199.		
June 9	-2,07	14.36.7,45	June 1	-2,19	32,14	June 9	-2,21	14.56.22,89	June 9	-2,24	15.11.33,93
Bessel xiv. 671.			8	-2,17	32,11	B.A.C. 4964.			Bessel xv. 206.		
June 2	-2,06	14.36.40,36	9	-2,17	32,00	June 13	-2,37	14.57.26,73	June 22	-2,19	15.11.50,38
H. C. 26849.			11	-2,17	32,03	ν^1 Libræ.			Bessel xv. 218.		
June 13	-2,15	14.37.13,53	13	-2,16	32,13	June 11	-2,23	14.58.12,92	June 13	-2,26	15.12.32,22
H. C. 26882.			14	-2,15	32,07	H. C. 27495.			σ^2 Libræ.		
June 11	-2,07	14.38.9,02	19	-2,13	32,01	June 9	-2,21	14.59.4,08	June 11 22	-2,27 -2,24	15.14.36,94 36,80
ϵ Bootis.			20	-2,13	31,93	Bessel xiv. 1150.			Bessel xv. 259.		
Apr. 19	-1,60	14.38.23,49	Bessel xiv. 846.			June 11	-2,20	15.0.43,39	June 9	-2,24	15.14.52,67
20	-1,61	23,62	June 2	-2,15	14.47.31,70	B.A.C. 4984			H. C. 28046.		
21	-1,62	23,61	9	-2,14	31,57	June 13	-2,40	15.1.3,48	June 13	-2,41	15.16.11,90
26	-1,66	23,49	13	-2,13	31,76	Bessel xv. 34.			H. C. 28062.		
May 3	-1,71	23,41	Bessel xiv. 909.			June 9	-2,29	15.2.56,28	June 23	-2,39	15.16.37,21
4	-1,71	23,49	May 7	-2,06	14.48.11,27	H. C. 27641.			Bessel xv. 314.		
7	-1,72	23,46	Bessel xiv. 928.			June 11	-2,25	15.3.24,31	June 11	-2,28	15.17.10,77
15	-1,74	23,54	June 11	-2,15	14.49.16,63	B.A.C. 4998.					
22	-1,75	23,63	H. C. 27229.			June 13	-2,42	15.4.28,54			
31	-1,73	23,62	June 13	-2,32	14.50.1,11	H. C. 27641.					
June 1	-1,72	23,44	17 Libræ.			June 11	-2,25	15.3.24,31			
Bessel xiv. 726.			June 9	-2,13	14.50.2,88	B.A.C. 4998.					
June 9	-2,08	14.38.56,04	H. C. 27229.			B.A.C. 4998.					
Bessel xiv. 735.			17 Libræ.			B.A.C. 4998.					
June 2	-2,11	14.39.31,66	June 9	-2,13	14.50.2,88	B.A.C. 4998.					

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
H. C. 28126.			α CORONÆ BOREALIS.			3 Scorpii.			χ Ophiuchi.		
June 9	-2,29	15.18.38,20	May 7	-1,77	15.28.17,79	June 13	-2,57	15.45.36,25	May 31	-2,33	16.18.16,94
19	-2,28	38,37	29	-1,89	17,71	H. C. 28954.			ANTARES.		
H. C. 28137.			June 1	-1,90	17,69	June 14	-2,36	15.47.15,93	May 29	-2,55	16.20.9,36
June 13	-2,29	15.19.16,27	2	-1,90	17,62	27	-2,35	15,77	31	-2,57	9,44
ζ Libræ.			9	-1,89	17,63	B.A.C. 5278.			June 2	-2,59	9,42
June 11	-2,31	15.19.44,91	11	-1,89	17,69	June 13	-2,49	15.48.22,10	9	-2,64	9,60
H. C. 28166.			13	-1,88	17,73	Bessel xv. 597.			13	-2,66	9,30
June 23	-2,46	15.20.15,22	19	-1,85	17,79	June 13	-2,29	15.31.25,06	H. C. 31042.		
Bessel xv. 400.			22	-1,84	17,72	Bessel xv. 950.			June 9	-2,48	16.57.0,79
June 19	-2,27	15.21.31,90	23	-1,83	17,74	June 23	-2,01	15.49.40,73	H. C. 31157.		
H. C. 28212.			30	-1,78	17,64	H. C. 29043.			June 9	-2,43	17.0.36,09
June 22	-2,38	15.21.53,13	July 12	-1,64	17,66	June 27	-2,46	15.50.20,93	H. C. 31258.		
ζ Libræ.			16	-1,59	17,77	δ Scorpii.			June 9	-2,49	17.3.37,03
May 7	-2,12	15.22.9,86	α SERPENTIS.			June 13	-2,52	15.51.24,90	α HERCULIS.		
H. C. 28233.			May 15	-1,92	15.36.50,15	19	-2,53	24,96	May 23	-1,96	17.7.45,91
June 11	-2,36	15.22.25,81	29	-2,01	50,10	30	-2,51	24,80	31	-2,06	45,90
Bessel xv. 419.			June 1	-2,02	50,14	H. C. 29113.			June 8	-2,14	45,90
June 9	-2,30	15.22.36,70	2	-2,04	50,14	June 14	-2,51	15.53.2,36	9	-2,15	45,95
13	-2,31	36,68	9	-2,04	50,18	H. C. 29156.			20	-2,22	45,96
H. C. 28247.			11	-2,04	50,04	June 13	-2,47	15.54.21,03	27	-2,24	45,94
June 23	-2,38	15.23.13,23	13	-2,04	50,15	B.A.C. 5335.			30	-2,25	45,92
H. C. 28296.			14	-2,04	50,04	June 13	-2,56	15.57.6,58	July 16	-2,20	45,86
June 11	-2,41	15.24.59,29	19	-2,03	50,02	H. C. 29347.			23	-2,16	45,98
H. C. 28320.			21	-2,03	50,07	June 13	-2,50	15.59.44,87	24	-2,15	45,86
June 9	-2,28	15.25.39,22	22	-2,02	50,07	H. C. 29456.			θ Ophiuchi.		
H. C. 28345.			23	-2,02	49,98	June 13	-2,54	16.2.55,52	July 11	-2,79	17.12.44,46
June 19	-2,33	15.26.27,03	27	-2,00	49,88	δ OPHIUCHI.			H. C. 31513.		
α CORONÆ BOREALIS.			30	-1,99	50,00	Apr. 20	-1,63	16.6.26,25	July 19	-2,62	17.12.57,86
May 7	-1,77	15.28.17,79	July 12	-1,91	50,05	May 31	-2,17	26,32	B.A.C. 5866.		
29	-1,89	17,71	16	-1,88	50,11	June 13	-2,23	26,31	July 16	-2,71	17.15.40,33
June 1	-1,90	17,69	H. C. 28752.			H. C. 29347.			H. C. 31657.		
2	-1,90	17,62	June 13	-2,52	15.39.53,93	June 13	-2,50	15.59.44,87	July 19	-2,73	17.16.52,82
9	-1,89	17,63	H. C. 28766.			H. C. 29456.			H. C. 31723.		
11	-1,89	17,69	June 14	-2,41	15.40.26,70	June 13	-2,54	16.2.55,52	July 11	-2,66	17.18.44,66
13	-1,88	17,73	19	-2,41	26,65	δ OPHIUCHI.			16	-2,65	44,75
19	-1,85	17,79	H. C. 28838.			Apr. 20	-1,63	16.6.26,25	H. C. 31723.		
22	-1,84	17,72	June 13	-2,42	15.42.57,06	May 31	-2,17	26,32	H. C. 31723.		
23	-1,83	17,74	14	-2,42	57,04	June 13	-2,23	26,31	H. C. 31723.		
30	-1,78	17,64	Bessel xv. 838.			20	-2,25	26,28	H. C. 31723.		
July 12	-1,64	17,66	June 19	-2,35	15.43.9,47	July 7	-2,21	26,19	H. C. 31723.		
16	-1,59	17,77	Bessel xv. 597.			B.A.C. 5335.			H. C. 31723.		
H. C. 28166.			Bessel xv. 400.			H. C. 29043.			H. C. 31723.		
June 23	-2,46	15.20.15,22	Bessel xv. 419.			H. C. 29113.			H. C. 31723.		
Bessel xv. 400.			H. C. 28212.			H. C. 29156.			H. C. 31723.		
June 19	-2,27	15.21.31,90	June 22	-2,38	15.21.53,13	June 13	-2,47	15.54.21,03	H. C. 31723.		
H. C. 28212.			ζ Libræ.			B.A.C. 5335.			H. C. 31723.		
June 22	-2,38	15.21.53,13	May 7	-2,12	15.22.9,86	H. C. 29347.			H. C. 31723.		
ζ Libræ.			H. C. 28233.			H. C. 29456.			H. C. 31723.		
May 7	-2,12	15.22.9,86	June 11	-2,36	15.22.25,81	δ OPHIUCHI.			H. C. 31723.		
H. C. 28233.			Bessel xv. 419.			B.A.C. 5335.			H. C. 31723.		
June 11	-2,36	15.22.25,81	June 9	-2,30	15.22.36,70	H. C. 29347.			H. C. 31723.		
Bessel xv. 419.			13	-2,31	36,68	H. C. 29456.			H. C. 31723.		
June 9	-2,30	15.22.36,70	H. C. 28247.			H. C. 29456.			H. C. 31723.		
13	-2,31	36,68	June 23	-2,38	15.23.13,23	H. C. 29456.			H. C. 31723.		
H. C. 28247.			H. C. 28296.			H. C. 29456.			H. C. 31723.		
June 23	-2,38	15.23.13,23	June 11	-2,41	15.24.59,29	H. C. 29456.			H. C. 31723.		
H. C. 28296.			H. C. 28320.			H. C. 29456.			H. C. 31723.		
June 11	-2,41	15.24.59,29	June 9	-2,28	15.25.39,22	H. C. 29456.			H. C. 31723.		
H. C. 28320.			H. C. 28345.			H. C. 29456.			H. C. 31723.		
June 9	-2,28	15.25.39,22	June 19	-2,33	15.26.27,03	H. C. 29456.			H. C. 31723.		
H. C. 28345.			Bessel xv. 838.			H. C. 29456.			H. C. 31723.		
June 19	-2,33	15.26.27,03	June 19	-2,35	15.43.9,47	H. C. 29456.			H. C. 31723.		

Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
H. C. 31752.			H. C. 32195.			H. C. 32602.			H. C. 32971.		
July 19 23	-2,64 -2,62	17. 19. 48,26 48,41	July 21	-2,86	17. 32. 39,46	July 31	-2,65	17. 43. 33,94	July 23 Aug. 4	-2,81 -2,75	17. 53. 13,73 13,87
c' Ophiuchi.			H. C. 32211.			H. C. 32604.			H. C. 33058.		
July 16	-2,77	17. 21. 37,85	July 11	-2,79	17. 33. 10,49	July 16	-2,91	17. 43. 47,41	July 21	-2,81	17. 55. 4,99
H. C. 31814.			H. C. 32271.			B.A.C. 6044.			B.A.C. 6108.		
July 11	-2,78	17. 22. 1,58	July 23	-2,65	17. 34. 31,96	July 11 12 23	-2,90 -2,90 -2,89	17. 44. 6,18 5,98 5,80	July 16	-2,88	17. 55. 27,73
B.A.C. 5909.			H. C. 32264.			H. C. 32632.			H. C. 33074.		
July 19	-2,82	17. 22. 21,69	July 16	-2,86	17. 34. 33,19	July 21	-2,69	17. 44. 29,67	July 31	-2,67	17. 55. 34,35
B.A.C. 5920.			H. C. 32316.			H. C. 32706.			H. C. 33111.		
July 23	-2,62	17. 24. 12,21	July 21	-2,66	17. 35. 40,10	Aug. 4	-2,63	17. 46. 15,71	July 23	-2,75	17. 56. 36,81
H. C. 31922.			H. C. 32335.			B.A.C. 6059.			H. C. 33147.		
July 16	-2,76	17. 24. 53,74	July 12	-2,68	17. 36. 9,77	July 16 31	-2,89 -2,84	17. 46. 58,84 58,92	Aug. 4	-2,73	17. 57. 47,68
H. C. 31955.			H. C. 32344.			B.A.C. 6063.			B.A.C. 6125.		
July 11	-2,67	17. 25. 43,84	July 11	-2,88	17. 36. 35,07	July 21	-2,92	17. 47. 10,08	July 21	-2,79	17. 58. 7,98
α Ophiuchi.			H. C. 32369.			H. C. 32742.			H. C. 33188.		
June 9 11 13 14 19 25 30 July 6 7 12 16 21 23 24 Aug. 4 6	-2,18 -2,20 -2,21 -2,22 -2,26 -2,29 -2,31 -2,32 -2,32 -2,31 -2,30 -2,28 -2,27 -2,26 -2,16 -2,14	17. 27. 55,64 55,71 55,68 55,60 55,61 55,56 55,67 55,81 55,71 55,74 55,60 55,73 55,68 55,71 55,62 55,62	July 23	-2,74	17. 37. 7,69	July 23	-2,81	17. 47. 18,45	July 16	-2,94	17. 59. 3,67
3 Sagittarii.			H. C. 32424.			H. C. 32847.			* N.P.D. 68°. 34'.		
			July 16	-2,91	17. 38. 3,41	July 16 31 Aug. 4	-2,81 -2,75 -2,72	17. 49. 49,68 49,70 49,74	June 27	-2,34	17. 59. 25,24
			H. C. 32471.			H. C. 32855.			B.A.C. 6132.		
			July 21	-2,77	17. 38. 38,44	July 21	-2,82	17. 49. 57,41	July 31	-2,85	17. 59. 33,99
			H. C. 32493.			H. C. 32865.			B.A.C. 6133.		
			July 11 23	-2,81 -2,79	17. 40. 9,71 9,73	July 23	-2,79	17. 50. 18,74	July 23	-2,79	17. 59. 35,13
			Σ 2224.			H. C. 32937.			H. C. 33272.		
			July 12 16 21	-2,89 -2,89 -2,87	17. 40. 39,68 39,72 39,50	July 31	-2,68	17. 52. 20,16	July 21 Aug. 4	-2,85 -2,78	18. 0. 53,71 53,92
						H. C. 32940.			B.A.C. 6158.		
June 30	-2,66	17. 32. 27,29	June 27	-2,38	17. 40. 59,66	July 16	-2,84	17. 52. 35,72	July 23	-2,76	18. 2. 17,83

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
Σ 2286.			H. C. 33812.			H. C. 34229.			H. C. 34717.		
June 27	-2,42	18. 2. 42,04	July 23	-2,74	18. 14. 4,48	Aug. 4	-2,81	18. 23. 39,21	Aug. 18	-2,72	18. 36. 17,84
μ^1 SAGITTARI.			H. C. 33817.			24 Sagittarii.			Sept. 5	-2,47	17,83
June 21	-2,63	18. 4. 43,98	Aug. 3	-2,76	18. 14. 20,26	July 21	-2,89	18. 24. 39,94	B.A.C. 6374.		
23	-2,65	44,06	4	-2,76	20,06	H. C. 34339.			Aug. 4	-2,96	18. 36. 35,64
25	-2,68	44,09	H. C. 33855.			Aug. 4	-2,73	18. 26. 22,66	28 Sagittarii.		
July 7	-2,77	44,06	July 21	-2,93	18. 15. 15,03	H. C. 34362.			July 21	-2,87	18. 37. 14,18
16	-2,80	43,94	H. C. 33885.			Aug. 18	-2,66	18. 26. 55,15	H. C. 34787.		
21	-2,80	44,04	July 31	-2,83	18. 15. 59,02	H. C. 34378.			Aug. 3	-2,85	18. 37. 52,25
31	-2,77	43,99	Aug. 13	-2,74	58,98	July 21	-2,94	18. 27. 25,30	B.A.C. 6836.		
Aug. 4	-2,74	44,16	H. C. 33917.			B.A.C. 6340.			Sept. 5	-2,47	18. 38. 54,61
13	-2,67	44,03	July 23	-2,82	18. 16. 37,47	Aug. 4	-2,74	18. 29. 5,43	H. C. 34860.		
18	-2,61	43,99	H. C. 33957.			H. C. 34504.			Aug. 18	-2,69	18. 39. 20,06
Sept. 5	-2,34	44,05	Aug. 4	-2,76	18. 17. 30,42	Aug. 18	-2,72	18. 30. 25,61	H. C. 34884.		
14 Sagittarii.			B.A.C. 6264.			H. C. 34532.			Aug. 4	-2,78	18. 39. 54,25
July 23	-2,81	18. 5. 11,60	July 21	-2,94	18. 18. 40,60	Aug. 13	-2,78	18. 31. 3,23	B.A.C. 6396.		
17 Sagittarii.			B.A.C. 6267.			H. C. 34572.			Aug. 6	-2,94	18. 40. 10,97
Aug. 4	-2,74	18. 7. 35,70	July 23	-2,76	18. 19. 7,89	Aug. 6	-2,94	18. 32. 19,75	H. C. 34898.		
H. C. 33559.			31	-2,74	7,64	H. C. 34619.			July 21	-2,91	18. 40. 15,71
July 16	-2,82	18. 8. 3,09	H. C. 34117.			Aug. 18	-2,69	18. 33. 27,58	H. C. 34930.		
H. C. 33564.			Aug. 4	-2,78	18. 20. 50,31	H. C. 34627.			Aug. 3	-2,76	18. 40. 51,40
July 23	-2,76	18. 8. 5,20	δ URSAE MINORIS.			Aug. 4	-2,87	18. 33. 44,70	16	-2,68	51,29
H. C. 33604.			Feb. 16	+13,61	18. 21. 1,73	H. C. 34668.			30 Sagittarii.		
July 21	-2,76	18. 9. 6,04	16	+13,49	2,68	July 21	-2,76	18. 34. 42,11	Sept. 5	-2,52	18. 41. 45,90
H. C. 33682.			17	+13,36	3,57	B.A.C. 6369.			B.A.C. 6408.		
Aug. 3	-2,74	18. 10. 37,76	H. C. 34152.			Aug. 13	-2,84	18. 35. 32,54	Aug. 18	-2,85	18. 42. 0,62
H. C. 33694.			July 23	-2,90	18. 21. 44,88	H. C. 34690.			H. C. 35009.		
July 16	-2,74	18. 11. 1,54	H. C. 34157.			Aug. 6	-2,81	18. 35. 37,64	Sept. 4	-2,47	18. 42. 25,79
23	-2,74	1,47	July 21	-2,83	18. 21. 57,05						
Aug. 4	-2,69	1,67	B.A.C. 6299.								
H. C. 33729.			Aug. 13	-2,69	18. 22. 59,75						
July 21	-2,78	18. 12. 5,14									
H. C. 33748.											
July 31	-2,74	18. 12. 30,15									

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.
H. C. 35053.			H. C. 35374.			ζ AQUILÆ continued.			B.A.C. 6565.		
Aug. 3	-2,86	18.43.32,98	Aug. 6	-2,79	18.51.0,06	Aug. 13	-2,46	18.58.28,30	Aug. 16	-2,92	19.4.34,16
H. C. 35049.			H. C. 35411.			17	-2,43	28,28	B.A.C. 6576.		
Aug. 6	-2,94	18.43.35,11	Aug. 3	-2,79	18.51.57,89	24	-2,35	28,25	Aug. 4	-2,93	19.6.21,14
H. C. 35086.			H. C. 35459.			Sept. 1	-2,24	28,20	18	-2,86	21,11
Sept. 5	-2,48	18.44.29,29	Aug. 16	-2,72	18.53.4,98	12	-2,07	28,15	24	-2,80	21,12
β LYRÆ.			B.A.C. 6490.			19	-1,95	28,29	Sept. 4	-2,66	21,17
July 6	-2,52	18.44.30,20	Sept. 5	-2,61	18.53.13,04	B.A.C. 6532.			H. C. 36087.		
10	-2,54	30,28	H. C. 35468.			Aug. 16	-2,91	18.58.45,16	Sept. 5	-2,58	19.6.32,50
21	-2,54	30,23	Aug. 18	-2,70	18.53.22,23	B.A.C. 6536.			7	-2,55	32,43
23	-2,53	30,38	H. C. 35497.			Aug. 18	-2,76	18.59.24,38	H. C. 36117.		
24	-2,53	30,41	Aug. 4	-2,82	18.54.11,38	Sept. 4	-2,83	18.59.53,06	Aug. 3	-3,03	19.7.19,21
Aug. 4	-2,45	30,26	6	-2,82	11,13	Sept. 4	-2,56	53,07	H. C. 36128.		
8	-2,42	30,30	Sept. 4	-2,54	11,20	π Sagittarii.			Aug. 16	-2,78	19.7.20,59
13	-2,36	30,33	B.A.C. 6505.			Sept. 5	-2,57	19.0.46,86	d Sagittarii.		
18	-2,29	30,35	Aug. 3	-2,94	18.55.29,61	H. C. 35843.			Aug. 18	-2,77	19.8.47,91
Sept. 4	-1,99	30,24	H. C. 35582.			Aug. 3	-2,92	19.1.48,52	24	-2,72	47,93
11	-1,84	30,32	Sept. 5	-2,51	18.55.59,51	16	-2,86	48,18	B.A.C. 6587.		
19	-1,67	30,36	H. C. 35592.			H. C. 35856.			Sept. 4	-2,59	19.9.21,09
H. C. 35098.			Aug. 16	-2,72	18.56.6,59	Aug. 18	-2,91	19.2.8,86	5	-2,57	21,01
Aug. 16	-2,74	18.44.53,21	18	-2,71	6,90	H. C. 35902.			H. C. 36239.		
H. C. 35168.			B.A.C. 6515.			Aug. 4	-2,86	19.2.56,02	Sept. 7	-2,54	19.9.40,40
Aug. 3	-2,83	18.46.14,81	Sept. 4	-2,68	18.56.54,24	24	-2,72	56,06	H. C. 36259.		
H. C. 35224.			H. C. 35635.			H. C. 35932.			Aug. 16	-2,79	19.9.54,25
Aug. 16	-2,79	18.47.36,21	Aug. 4	-2,83	18.57.4,52	Sept. 7	-2,59	19.3.23,25	H. C. 36288.		
H. C. 35240.			ζ AQUILÆ.			H. C. 35931.			Aug. 4	-2,90	19.10.41,56
Aug. 4	-2,78	18.47.58,36	June 21	-2,29	18.58.28,25	Sept. 5	-2,66	19.3.25,56	B.A.C. 6604.		
18	-2,69	58,53	25	-2,35	28,27	H. C. 35935.			Aug. 24	-2,82	19.11.30,73
ξ^1 Sagittarii.			July 6	-2,46	28,36	Sept. 4	-2,66	19.3.32,79	B.A.C. 6607.		
Aug. 6	-2,83	18.48.22,17	10	-2,50	28,30	H. C. 35991.			Aug. 3	-2,90	19.11.35,15
B.A.C. 6467.			23	-2,54	28,22	Aug. 3	-2,83	19.4.34,20			
Aug. 3	-2,84	18.49.13,27	Aug. 3	-2,52	28,27						
Sept. 5	-2,52	13,13	6	-2,51	28,28						
H. C. 35355.			8	-2,50	28,34						
Aug. 4	-2,86	18.50.33,02									
16	-2,72	32,91									
18	-2,77	33,00									

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.
B.A.C. 6611.			H. C. 36657.			H. C. 36941.			e ¹ Sagittarii.		
Aug. 16	-2,91	19. 12. 25,84	Aug. 4	-2,87	19. 18. 40,24	Aug. 17	-2,81	19. 24. 47,03	Aug. 24	-2,74	19. 32. 4,35
Sept. 4	-2,72	(26,48)							Sept. 5	-2,62	4,26
ρ ² Sagittarii.			H. C. 36678.			H. C. 36947.			H. C. 37306.		
Sept. 7	-2,55	19. 13. 2,32	Sept. 5	-2,63	19. 19. 10,65	Aug. 16	-2,82	19. 24. 56,51	Aug. 16	-2,87	19. 32. 54,87
H. C. 36403.			B.A.C. 6658.			H. C. 36976.			B.A.C. 6738.		
Aug. 18	-2,79	19. 13. 13,43	Aug. 16	-2,80	19. 19. 18,07	Aug. 4	-2,82	19. 25. 34,87	Aug. 17	-2,93	19. 33. 12,61
Sept. 5	-2,59	13,26	24	-2,74	18,09	6	-2,82	34,84			
H. C. 36448.			Sept. 4	-2,62	18,16	H. C. 36999.			H. C. 37336.		
			7	-2,57	18,08	Sept. 4	-2,64	19. 26. 8,14	Aug. 6	-2,95	19. 33. 29,03
Aug. 3	-2,85	19. 14. 13,62	B.A.C. 6666.			h ¹ Sagittarii.			e ² Sagittarii.		
24	-2,74	13,74	Aug. 18	-2,94	19. 20. 31,60	Aug. 3	-2,96	19. 26. 51,37	July 21	-2,77	19. 33. 52,77
B.A.C. 6628.			H. C. 36777.			h ² Sagittarii.			Aug. 4	-2,82	52,85
Aug. 4	-3,01	19. 15. 5,25	Aug. 6	-2,86	19. 21. 11,59	Aug. 16	-2,93	19. 27. 30,69	H. C. 37420.		
H. C. 36501.			H. C. 36786.			24	-2,87	30,87	Sept. 17	-2,55	19. 35. 30,77
Aug. 6	-2,82	19. 15. 5,56	Aug. 3	-2,86	19. 21. 18,87	Sept. 7	-2,71	30,77	H. C. 37447.		
17	-2,77	5,62	H. C. 36810.			B.A.C. 6707.			Aug. 16	-2,82	19. 35. 48,65
χ ¹ Sagittarii.			Aug. 16	-2,81	19. 21. 54,09	Aug. 17	-2,82	19. 27. 37,91	17	-2,81	48,83
Aug. 16	-2,90	19. 16. 4,87	24	-2,75	54,19	H. C. 37079.			18	-2,81	48,82
18	-2,89	4,95	Sept. 5	-2,61	54,24	Sept. 5	-2,64	19. 28. 1,19	H. C. 37439.		
Sept. 7	-2,66	4,97	B.A.C. 6671.			B.A.C. 6710.			Sept. 4	-2,82	19. 35. 55,47
χ ² Sagittarii.			Aug. 4	-2,89	19. 21. 56,20	Aug. 6	-2,85	19. 28. 17,47	H. C. 37481.		
Sept. 5	-2,69	19. 16. 11,64	H. C. 36828.			H. C. 37204.			Sept. 5	-2,80	19. 37. 0,43
H. C. 36562.			Aug. 17	-2,77	19. 22. 7,77	Aug. 4	-2,83	19. 30. 31,99	H. C. 37491.		
Aug. 24	-2,80	19. 16. 40,16	H. C. 36835.			16	-2,80	31,77	Sept. 25	-2,45	19. 37. 15,81
H. C. 36585.			Sept. 4	-2,67	19. 22. 26,97	17	-2,80	31,94	γ AQUILÆ.		
Aug. 3	-2,87	19. 16. 58,24	H. C. 36911.			53 Sagittarii.			July 10	-2,51	19. 39. 4,95
Sept. 4	-2,64	58,24	Aug. 3	-2,81	19. 23. 48,56	Aug. 3	-2,94	19. 30. 44,75	16	-2,56	4,91
H. C. 36613.			H. C. 36929.			18	-2,89	44,87	21	-2,60	5,00
Aug. 17	-2,83	19. 17. 37,62	Aug. 18	-2,81	19. 24. 22,52	B.A.C. 6727.			31	-2,64	4,92
H. C. 36618.			Sept. 5	-2,63	22,23	Aug. 6	-2,94	19. 31. 2,29	Aug. 3	-2,64	4,81
Aug. 6	-2,94	19. 17. 48,65	7	-2,61	22,27	Sept. 4	-2,73	2,22	4	-2,64	4,89

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
<i>γ</i> AQUILÆ continued.			<i>β</i> AQUILÆ continued.			H. C. 38216.			B.A.C. 6907.		
Aug. 24	-2,54	19.39.48,6	Aug. 8	-2,67	19.47.53,82	Aug. 3	-2,92	19.54.30,16	Sept. 8	-2,66	19.59.57,79
Sept. 1	-2,46	4,89	9	-2,67	53,89				25	-2,42	57,67
4	-2,43	4,94	16	-2,64	53,76	B.A.C. 6880.			Oct. 2	-2,30	57,64
5	-2,42	4,89	24	-2,59	53,77				H. C. 38462.		
7	-2,39	4,82	Sept. 5	-2,47	53,77	July 31	-2,81	19.55.0,24			
8	-2,38	4,75	7	-2,45	53,90	H. C. 38240.			July 31	-2,81	20.0.17,24
11	-2,33	4,92	8	-2,44	53,96				Aug. 3	-2,82	17,32
12	-2,32	4,90	11	-2,40	53,94				13	-2,83	17,20
13	-2,30	4,84	12	-2,38	53,71	H. C. 38240.					
17	-2,25	4,91	13	-2,37	53,74				H. C. 38517.		
24	-2,13	4,82	17	-2,31	53,80						
Oct. 2	-1,99	4,89	24	-2,20	53,61	Aug. 17	-2,98	19.55.6,41			
31	-1,47	4,87	25	-2,19	53,78	B.A.C. 6888.					
<i>α</i> AQUILÆ.			Oct. 2	-2,07	53,72						
			8	-1,97	53,63						
			10	-1,93	53,88						
July 10	-2,53	19.43.24,95	<i>g</i> Sagittarii.								
16	-2,58	24,96									
21	-2,63	25,10	Aug. 17	-2,81	19.49.23,03	B.A.C. 6889.					
31	-2,67	24,83									
Aug. 3	-2,67	24,75	B.A.C. 6850.								
4	-2,67	24,94									
6	-2,67	24,84	Aug. 13	-2,92	19.50.37,01						
8	-2,67	24,91	Sept. 4	-2,77	36,96						
9	-2,67	24,80	17	-2,60	37,05						
13	-2,65	24,96	H. C. 38081.								
16	-2,63	25,01									
17	-2,63	24,91	Aug. 16	-2,89	19.51.30,61						
18	-2,63	25,01	H. C. 38096.								
24	-2,58	24,86									
Sept. 1	-2,51	24,91	Sept. 7	-2,70	19.51.42,53						
4	-2,47	24,86	H. C. 38104.								
5	-2,46	24,92									
7	-2,44	24,80	Aug. 3	-2,83	19.51.55,43						
8	-2,43	24,96	H. C. 38113.								
11	-2,39	24,93									
12	-2,37	25,01	Aug. 17	-2,90	19.52.14,51						
13	-2,36	24,92	H. C. 38161.								
17	-2,30	24,98									
19	-2,27	25,02	Sept. 17	-2,54	19.53.11,45						
24	-2,19	24,82	H. C. 38164.								
25	-2,17	24,85									
Oct. 2	-2,05	24,95	Sept. 25	-2,44	19.53.15,21						
31	-1,54	25,04	H. C. 38192.								
<i>ω</i> Sagittarii.											
Aug. 17	-2,97	19.46.35,08	H. C. 38161.								
B.A.C. 6831.											
Aug. 13	-2,93	19.47.39,36									
Sept. 4	-2,77	39,36									
<i>β</i> AQUILÆ.											
July 16	-2,57	19.47.53,65	H. C. 38164.								
21	-2,62	53,57									
31	-2,66	53,83	Sept. 25	-2,44	19.53.15,21						
Aug. 3	-2,66	53,85	H. C. 38192.								
4	-2,67	53,80									
6	-2,67	53,73	Aug. 13	-2,83	19.53.58,54						
			16	-2,83	58,53						

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
B.A.C. 7221.			Bessel xx. 1370.			Bessel xx. 1568.			B.A.C. 7400.		
Sept. 25	-2,56	20.42.22,05	Sept. 11	-2,75	20.53.22,38	Oct. 8	-2,45	21.1.15,14	Oct. 8	-2,54	21.12.27,95
Oct. 9	-2,35	22,03							15	-2,43	27,94
Bessel xx. 1114.			Bessel xx. 1394.			H. C. 40967.			Bessel xxi. 276.		
Oct. 2	-2,47	20.43.12,19	Oct. 10	-2,39	20.54.9,36	Sept. 11	-2,86	21.1.16,68	Oct. 10	-2,46	21.12.31,70
B.A.C. 7237.			H. C. 40744.			H. C. 40994.			H. C. 41483.		
Oct. 26 ¹	-2,15	20.44.9,36	Oct. 18	-2,30	20.55.30,02	Oct. 3	-2,54	21.1.44,51	Oct. 2	-2,59	21.13.56,68
B.A.C. 7238.			B.A.C. 7312.			H. C. 41000.			11	-2,46	56,93
Oct. 11	-2,33	20.44.10,74	Sept. 11	-2,79	20.56.22,65	Sept. 25	-2,66	21.1.55,15	Bessel xxi. 346.		
			Oct. 2	-2,54	22,37	Oct. 18	-2,32	55,22	Oct. 15	-2,39	21.15.1,47
			Nov. 5	-1,99	22,59				18 Aquarii.		
Bessel xx. 1157.			H. C. 40797.			B.A.C. 7352.			Sept. 24	-2,68	21.15.55,22
Oct. 3	-2,47	20.45.11,01	Oct. 15	-2,37	20.57.4,50	Oct. 2	-2,55	21.3.20,44	H. C. 41580.		
10	-2,36	11,19	26	-2,19	4,34	31	-2,10	20,44	Oct. 10	-2,47	21.16.28,84
H. C. 40386.			H. C. 40803.			H. C. 41078.			Bessel xxi. 389.		
Sept. 11	-2,79	20.47.9,58	Oct. 10	-2,41	20.57.15,83	Oct. 26	-2,22	21.3.59,23	Oct. 11	-2,47	21.16.56,89
Oct. 8	-2,43	9,45							Bessel xxi. 418.		
H. C. 40391.			B.A.C. 7325.			H. C. 41118.			Oct. 8	-2,51	21.18.12,36
Oct. 26	-2,12	20.47.16,62	Sept. 25	-2,67	20.58.5,12	Oct. 3	-2,53	21.4.48,65	Bessel xxi. 422.		
B.A.C. 7263.			Bessel xx. 1491.			H. C. 41133.			Oct. 15	-2,40	21.18.16,95
Oct. 18	-2,26	20.49.13,12	Oct. 8	-2,44	20.58.18,82	Oct. 18	-2,35	21.5.22,53	* N.P.D. 110°. 51'.		
Bessel xx. 1278.			H. C. 40863.			H. C. 41149.			Oct. 26	-2,27	21.18.57,56
Oct. 8	-2,39	20.49.46,27	Sept. 11	-2,76	20.58.41,24	Oct. 10	-2,43	21.5.35,70	B.A.C. 7451.		
			Oct. 3	-2,51	41,06				Oct. 10	-2,48	21.19.27,17
Bessel xx. 1291.			H. C. 40860.			Bessel xxi. 188.			β AQUARI.		
Sept. 11	-2,74	20.50.15,00	Oct. 18	-2,33	20.58.42,13	Oct. 2	-2,56	21.8.57,03	Aug. 3	-2,69	21.23.36,37
Oct. 11	-2,36	14,89				10	-2,45	57,23	4	-2,70	36,36
26	-2,11	14,66	H. C. 40877.			H. C. 41317.			8	-2,74	36,37
Bessel xx. 1303.			Oct. 2	-2,58	20.59.13,15	Oct. 15	-2,39	21.9.28,62	13	-2,77	36,35
Oct. 10	-2,37	20.50.45,95	H. C. 40918.			Bessel xxi. 239.			16	-2,79	36,28
9 Aquarii.			Oct. 15	-2,33	20.59.58,65	Sept. 24	-2,67	21.11.3,63	17	-2,80	36,26
Oct. 15	-2,31	20.52.48,71	31	-2,07	58,50	H. C. 41400.			18	-2,80	36,30
18	-2,26	48,77	26 Capricorni.			Oct. 3	-2,56	21.11.52,35			
			Oct. 26	-2,20	21.0.38,82						

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
β AQUARIi continued.			H. C. 42245.			B.A.C. 7630.			H. C. 43204.		
Sept. 4	-2,81	21.23.36,41	Nov. 5	-2,17	21.33.34,95	Oct. 26	-2,37	21.46.46,32	Oct. 26	-2,44	22.2.1,79
19	-2,73	36,44							31	-2,36	2,05
25	-2,67	36,28	κ Capricorni.			Bessel XXI. 1106.			ϵ° Aquarii.		
26	-2,66	36,42									
Oct. 2	-2,59	36,35	Sept. 25	-2,75	21.34.13,38	Oct. 29	-2,32	21.46.53,78	Oct. 18	-2,54	22.2.32,94
8	-2,51	36,33	Oct. 15	-2,50	13,22						
9	-2,50	36,43	Bessel XXI. 828.			Bessel XXI. 1126.			H. C. 43363.		
10	-2,48	36,43									
15	-2,41	36,22	Oct. 2	-2,64	21.34.27,09	Nov. 5	-2,22	21.47.55,87	Oct. 18	-2,56	22.6.27,26
18	-2,37	36,49				10	-2,15	55,94	26	-2,46	27,29
31	-2,17	36,31	Bessel XXI. 835.			B.A.C. 7640.					
Nov. 2	-2,14	36,48									
5	-2,10	36,52	Sept. 26	-2,71	21.34.33,14	Oct. 31	-2,31	21.49.33,81	θ Aquarii.		
10	-2,02	36,29							Oct. 9	-2,67	22.8.51,70
13	-1,98	36,50	H. C. 42307.			Bessel XXI. 1192.			Bessel XXII. 197.		
24	-1,83	36,46	Oct. 10	-2,53	21.34.58,79	Nov. 10	-2,16	21.50.27,39	Oct. 18	-2,57	22.9.49,06
H. C. 41941.			Bessel XXI. 906.			H. C. 42851.			Bessel XXII. 243.		
Oct. 26	-2,29	21.26.19,09	Oct. 31	-2,25	21.37.15,38	Nov. 17	-2,06	21.51.12,42	Nov. 24	-2,06	22.12.12,28
H. C. 41984.			H. C. 42407.			Bessel XXI. 1253.			ρ Aquarii.		
Oct. 18	-2,43	21.27.5,68	Nov. 5	-2,19	21.38.5,96	Oct. 2	-2,70	21.53.33,23	Sept. 25	-2,80	22.12.15,00
Bessel XXI. 655.			λ Capricorni.			Nov. 10	-2,17	33,19	H. C. 43567.		
Oct. 10	-2,51	21.27.23,56	Sept. 26	-2,72	21.38.24,17	α AQUARIi.			Oct. 18	-2,58	22.12.22,34
15	-2,44	23,39	δ Capricorni.			Aug. 3	-2,62	21.58.1,65	Bessel XXI. 259.		
H. C. 42043.			Oct. 10	-2,57	21.38.41,95	4	-2,64	1,62	Nov. 5	-2,34	22.12.53,11
Nov. 5	-2,13	21.28.29,92	15	-2,51	42,07	6	-2,66	1,64	Bessel XXII. 300.		
Bessel XXI. 695.			Bessel XXI. 995.			8	-2,69	1,60	Oct. 18	-2,59	22.14.46,79
Sept. 26	-2,69	21.29.10,77	Oct. 15	-2,49	21.41.32,27	9	-2,70	1,66	H. C. 43862.		
B.A.C. 7517.			Bessel XXI. 1023.			13	-2,74	1,70	Nov. 10	-2,30	22.20.44,57
Oct. 26	-2,30	21.29.56,94	Sept. 26	-2,72	21.43.0,68	16	-2,76	1,61	Bessel XXI. 493.		
H. C. 42121.			Nov. 5	-2,20	0,70	17	-2,77	1,64	Oct. 8	-2,72	22.23.22,95
Oct. 15	-2,49	21.30.22,45	B.A.C. 7608.			18	-2,78	1,64	Nov. 13	-2,28	23,18
Bessel XXI. 739.			Oct. 26	-2,37	21.43.18,33	19	-2,51	1,63	δ Aquarii.		
Nov. 5	-2,15	21.31.0,65	31	-2,29	13,11	26	-2,41	1,59	Oct. 29	-2,48	22.23.40,77
Bessel XXI. 752.			μ Capricorni.			29	-2,37	1,68			
Oct. 18	-2,41	21.31.23,14	Oct. 18	-2,48	21.45.3,59	31	-2,34	1,55			
γ Capricorni.			Nov. 10	-2,13	3,47	Nov. 10	-2,20	1,56			
Oct. 10	-2,55	21.31.43,08				13	-2,16	1,72			
						24	-2,01	1,68			
						28	-1,96	1,54			
						Dec. 4	-1,88	1,74			

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.
Bessel xxii. 515.			B.A.C. 7899.			H. C. 44601.			Bessel xxii. 1092.		
Nov. 6	-2,38	22.24.27,01	Oct. 8	-2,75	22.32.19,75	Nov. 24	-2,23	22.40.7,69	Nov. 5	-2,51	22.52.12,89
Bessel xxii. 519.			Bessel xxii. 708.			Bessel xxii. 881.			6	-2,50	12,83
Oct. 31	-2,46	22.24.37,55	Oct. 15	-2,69	22.33.25,62	Oct. 8	-2,77	22.41.28,55	24	-2,26	13,08
Nov. 10	-2,33	37,64	Nov. 28	-2,12	25,45	26	-2,59	28,75	28	-2,22	12,73
Bessel xxii. 521.			Bessel xxii. 723.			Nov. 10	-2,40	28,63	B.A.C. 8010.		
Bessel xxii. 548.			Nov. 14	-2,31	22.34.2,90	Bessel xxii. 894.			Sept. 25	-2,86	22.52.26,72
Sept. 25	-2,83	22.24.45,50	Bessel xxii. 735.			Nov. 5	-2,47	22.42.10,89	Oct. 18	-2,72	26,57
Bessel xxii. 556.			Oct. 8	-2,76	22.34.28,80	21	-2,26	11,02	Bessel xxii. 1196.		
Oct. 29	-2,50	22.26.3,10	Bessel xxii. 752.			28	-2,17	10,67	Nov. 24	-2,31	22.56.23,13
Bessel xxii. 599.			Oct. 29	-2,53	22.35.4,05	μ Pegasi.			α PEGASI.		
Nov. 6	-2,41	22.28.26,82	η Pegasi.			Sept. 25	-3,09	22.42.43,27	Jan. 2	+0,70	22.57.14,62
10	-2,35	26,61	Sept. 25	-3,14	22.35.55,76	Bessel xxii. 910.			Sept. 21	-3,02	14,60
14	-2,30	26,77	Bessel xxii. 776.			Nov. 6	-2,46	22.43.17,53	25	-3,02	14,57
24	-2,16	26,94	Nov. 28	-2,14	22.36.19,96	24	-2,23	17,63	Oct. 3	-2,98	14,70
28	-2,11	26,62	H. C. 44479.			λ Aquarii.			8	-2,95	14,57
Bessel xxii. 617.			Oct. 26	-2,57	22.36.57,25	Nov. 10	-2,47	22.44.43,98	10	-2,93	14,58
Oct. 15	-2,67	22.29.5,40	Nov. 6	-2,43	57,31	Bessel xxii. 933.			11	-2,93	14,54
19	-2,63	5,21	14	-2,32	57,15	Nov. 5	-2,48	22.44.48,58	12	-2,92	14,59
29	-2,50	5,20	B.A.C. 7935.			Bessel xxii. 937.			18	-2,87	14,57
Nov. 13	-2,30	5,33	Oct. 15	-2,70	22.37.24,47	Nov. 21	-2,30	22.44.52,83	27	-2,78	14,59
Bessel xxii. 659.			Nov. 24	-2,20	24,63	74 Aquarii.			29	-2,76	14,65
Nov. 14	-2,30	22.30.59,71	Bessel xxii. 816.			Nov. 28	-2,18	22.45.31,45	Nov. 6	-2,66	14,65
64 Aquarii.			Oct. 8	-2,76	22.38.16,53	H. C. 44774.			10	-2,61	14,58
Sept. 25	-2,83	22.31.19,32	29	-2,54	16,57	Nov. 24	-2,25	22.45.54,32	14	-2,56	14,55
Nov. 6	-2,41	19,19	Nov. 5	-2,45	16,64	Bessel xxii. 1009.			21	-2,47	14,79
Bessel xxii. 669.			Bessel xxii. 832.			Nov. 5	-2,49	22.48.11,29	28	-2,38	14,56
Oct. 29	-2,53	22.31.26,00	Nov. 21	-2,27	22.39.24,25	21	-2,28	11,31	Dec. 4	-2,30	14,62
Bessel xxii. 675.			H. C. 44564.			Bessel xxii. 1033.			6	-2,27	14,62
Nov. 24	-2,17	22.31.36,24	Nov. 28	-2,16	22.39.29,52	Nov. 6	-2,51	22.49.19,02	17	-2,13	14,62
H. C. 44292.			B.A.C. 7951.			24	-2,28	19,00	Bessel xxii. 1258.		
Oct. 19	-2,64	22.31.51,36	Nov. 6	-2,46	22.40.2,79	B.A.C. 8073.			Nov. 24	-2,31	22.59.24,99
						Bessel xxiii. 4.			Bessel xxii. 1292.		
						Nov. 10	-2,53	23.1.17,47	Nov. 2	-2,59	23.1.13,46
						Bessel xxiii. 51.					
						Nov. 28	-2,31	23.3.50,03			

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849. h. m. s.
Bessel xxiii. 56.			Bessel xxiii. 239.			Bessel xxiii. 399.			Bessel xxiii. 763.		
Nov. 10	-2,51	23. 4. 3,12	Nov. 24	-2,37	23. 11. 48,23	Oct. 18	-2,86	23. 19. 59,54	Nov. 6	-2,71	23. 37. 1,52
H. C. 45395.			Bessel xxiii. 260.			Bessel xxiii. 404.			Bessel xxiii. 783.		
Oct. 29	-2,67	23. 4. 25,23	Oct. 15	-2,80	23. 12. 48,52	Nov. 29	-2,40	23. 20. 17,14	Nov. 14	-2,68	23. 38. 16,04
60 Pegasi.			Nov. 10	-2,55	48,49	Bessel xxiii. 427.			Bessel xxiii. 808.		
Oct. 12	-3,11	23. 4. 29,86	Bessel xxiii. 265.			Nov. 24	-2,42	23. 21. 12,12	Nov. 16	-2,69	23. 39. 36,39
Bessel xxiii. 76.			Oct. 29	-2,68	23. 13. 0,96	Bessel xxiii. 442.			Bessel xxiii. 830.		
Nov. 2	-2,61	23. 5. 6,46	Nov. 2	-2,63	1,03	Nov. 6	-2,65	23. 21. 51,97	Dec. 6	-2,43	23. 40. 27,97
Bessel xxiii. 84.			H. C. 45758.			Bessel xxiii. 447.			B.A.C. 8274.		
Nov. 6	-2,57	23. 5. 36,50	Nov. 29	-2,38	23. 14. 37,21	Nov. 21	-2,48	23. 22. 10,75	Nov. 5	-2,73	23. 40. 47,02
24	-2,34	36,73	b ¹ Aquarii.			Bessel xxiii. 466.			6	-2,72	47,04
Bessel xxiii. 123.			Oct. 12	-2,82	23. 15. 2,11	Nov. 29	-2,39	23. 23. 10,86	Bessel xxiii. 862.		
Nov. 10	-2,52	23. 6. 47,75	Bessel xxiii. 328.			Bessel xxiii. 467.			Nov. 29	-2,49	23. 41. 47,29
Bessel xxiii. 132.			Oct. 15	-2,82	23. 16. 16,21	Nov. 14	-2,56	23. 23. 13,97	H. C. 46672.		
Oct. 29	-2,67	23. 7. 24,04	29	-2,70	15,88	Bessel xxiii. 559.			Nov. 16	-2,66	23. 41. 59,63
Nov. 28	-2,32	23,96	Nov. 2	-2,66	16,03	Nov. 21	-2,49	23. 27. 16,65	Bessel xxiii. 885.		
B.A.C. 8094.			6	-2,62	16,08	Bessel xxiii. 560.			Nov. 6	-2,76	23. 43. 25,18
Nov. 2	-2,64	23. 7. 47,54	Bessel xxiii. 350.			Nov. 14	-2,60	23. 27. 19,85	Bessel xxiii. 893.		
ψ^1 Aquarii.			Oct. 18	-2,81	23. 17. 12,27	B.A.C. 8214.			Dec. 6	-2,44	23. 43. 55,54
Nov. 6	-2,58	23. 7. 53,75	Nov. 29	-2,36	12,38	Nov. 16	-2,56	23. 27. 44,69	Bessel xxiii. 907.		
χ Aquarii.			Bessel xxiii. 376.			Bessel xxiii. 642.			Nov. 29	-2,56	23. 44. 32,88
Nov. 24	-2,36	23. 9. 1,25	Nov. 21	-2,46	23. 18. 45,93	Nov. 16	-2,60	23. 31. 3,80	ϕ Pegasi.		
Bessel xxiii. 179.			Bessel xxiii. 377.			Bessel xxiii. 684.			Oct. 9	-3,17	23. 44. 48,45
Nov. 10	-2,56	23. 9. 27,72	Nov. 24	-2,40	23. 18. 46,25	Oct. 29	-2,76	23. 33. 0,90	Bessel xxiii. 961.		
Bessel xxiii. 209.			Bessel xxiii. 381.			ω^2 Aquarii.			Nov. 10	-2,74	23. 46. 50,36
Oct. 29	-2,68	23. 10. 32,80	Nov. 6	-2,61	23. 18. 54,98	Oct. 10	-2,86	23. 34. 53,34	H. C. 46857.		
Nov. 2	-2,64	32,98	κ Piscium.			H. C. 46493.			Nov. 6	-2,77	23. 46. 57,56
ψ^2 Aquarii.			Oct. 9	-2,91	23. 19. 11,57	Oct. 29	-2,78	23. 36. 3,97			
Nov. 6	-2,53	23. 11. 6,41	Bessel xxiii. 390.								
			Nov. 14	-2,57	23. 19. 27,39						

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1849.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
Bessel xxiii. 973.			Bessel xxiii. 1029.			Bessel xxiii. 1078.			H. C. 47143.		
Oct. 29	-2,83	23.47.23,09	Oct. 29	-2,83	23.50.2,63	Oct. 29	-2,88	23.52.26,98	Oct. 29	-2,85	23.54.51,02
Bessel xxiii. 978.			Bessel xxiii. 1044.			Bessel xxiii. 1111.			Nov. 6	-2,79	51,08
Nov. 16	-2,66	23.47.38,79	Nov. 16	-2,69	23.50.39,13	Nov. 16	-2,73	23.53.58,19	Oct. 29	-2,84	23.56.46,56
H. C. 46908.			H. C. 47005.			29 Piscium.			Nov. 5	-2,79	46,60
Nov. 29	-2,54	23.48.21,97	Nov. 29	-2,62	23.51.12,53	30 Piscium.			29	-2,55	46,41
H. C. 46918.			H. C. 47028.			Nov. 29	-2,57	23.54.5,21	Bessel xxiii. 1179.		
Nov. 28	-2,58	23.48.42,61	Nov. 28	-2,57	23.51.46,80	H. C. 47222.			Nov. 28	-2,64	23.57.2,40
Bessel xxiii. 1013.			H. C. 47030.			Nov. 5	-2,78	23.54.12,95	H. C. 47225.		
Dec. 6	-2,47	23.49.19,60	Dec. 6	-2,49	23.51.49,54	28	-2,56	12,84	Dec. 6	-2,52	23.57.26,59
Bessel xxiii. 1016.			B.A.C. 8333.			Bessel xxiii. 1130.					
Nov. 6	-2,76	23.49.24,45	Nov. 6	-2,77	23.51.56,00	Dec. 6	-2,47	23.54.39,74	Nov. 14	-2,76	23.57.33,97

APPARENT NORTH POLAR DISTANCES

OBSERVED WITH THE

MURAL CIRCLE

IN THE YEAR 1849.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						Inch.	°		°	'	"	
Jan. 2	(a) Zenith Point.....										291.39.43,41								
	(b) Hebe.....	1.9,9	14,7	19,4	11,0	13,2	13,5	+7,0	13,375	+4½	338.35.5,20	29,894	32,8	25,4	65,55	84.43.35,34			T.
Jan. 5	(c) Hebe.....	3.10,2	11,5	19,0	9,0	14,0	15,8			+2½	338.8.14,37	29,883	31,7	28,5	64,08	84.16.43,04			T.
Jan. 15	Hebe.....	1.22,6	25,0	29,4	19,7	24,8	23,7	+5,3		+2½	336.31.24,87	29,894	38,9	37,0	59,52	82.39.50,63			B.
Jan. 20	Hebe.....	0.17,2	22,2	24,0	16,8	19,6	18,6			+2½	335.40.20,21	30,220	46,2	42,9	57,69	81.48.44,14			B.
Jan. 22	(d) Hebe.....	4.37,8	41,6	43,5	35,2	40,4	38,2			+3	335.19.39,94	30,076	45,2	43,8	56,63	81.28.2,81			B.
Jan. 23	Zenith Point R...	0.9,9	14,6	15,6	7,5	10,0	7,7	+5,6	11,398		111.39.41,76								B.
	H. C. 8336.....	0.24,2	27,8	31,3	22,7	26,4	25,0	+5,3			325.5.26,30	30,300	46,9	46,9	39,22	71.13.31,76			B.
	(d)(e) H. C. 8479.....	4.18,6	25,0	26,4	18,6	24,7	21,7				355.14.22,38				119,09	101.23.47,71			B.
	H. C. 8798.....	0.11,0	14,8	17,5	9,3	15,2	10,9				323.15.13,15				36,55	69.23.15,94			B.
	(d) H. C. 9058.....	4.10,9	14,8	15,7	6,9	10,2	8,3				300.19.11,00				9,05	46.26.46,29			B.
	H. C. 9228.....	2.27,1	30,0	33,3	25,6	30,5	28,5				322.32.29,60				35,54	68.40.31,38			B.
	B.A.C. 1542.....	2.52,2	54,1	59,8	50,2	55,2	52,0				329.42.54,43				46,51	75.51.7,18			B.
	(d) Tauri.....	4.52,0	56,1	58,5	50,4	54,4	51,0				322.29.53,72				35,48	68.37.55,44			B.
	Bessel iv. 1312...	4.0,5	2,1	9,0	0,1	4,7	2,4				329.59.3,85				46,96	76.7.17,05			B.
	(f) Hebe.....	4.17,4	19,1	25,9	17,2	21,2	21,0		9,961	+2½	335.9.22,32	30,308	47,1	46,0	56,47	81.17.45,03			B.
Jan. 26	(c) Hebe.....	3.51,5	53,6	61,4	52,4	55,4	54,5		12,000	+3	334.38.14,33	29,797	42,9	38,9	55,33	80.46.35,90			B.
Jan. 30	Regulus.....	4.41,2	40,2	49,5	38,9	43,7	43,2			+4	331.9.44,16	29,899	41,4	41,6	48,86	77.17.59,26			B.
	(g) Iris.....	4.31,9	30,9	40,7	28,7	33,3	34,1			+4	341.24.34,27				69,95	87.33.10,46			B.
Jan. 31	(h) ω ³ Tauri.....	4.53,3	52,1	63,2	50,2	55,7	55,0	+4,5			323.39.55,65	30,149	41,3	40,3	37,46	69.47.59,31			B.
	Rigel.....	3.47,5	49,1	56,8	44,9	51,0	49,4		9,987	+3	352.13.50,42	30,163	40,8	38,9	106,27	98.23.2,89			B.
	(i) Hebe.....	1.32,9	35,4	39,6	31,6	36,2	34,6			+4	333.46.36,06				54,35	79.54.56,61			B.
	79 Geminorum...	1.35,2	36,3	42,6	32,5	37,8	36,9			+4	323.11.38,03	30,170	39,9	37,6	37,01	69.19.41,24			B.
	B.A.C. 2683.....	1.13,5	14,0	21,5	10,1	15,4	14,7				324.36.15,07				39,09	70.44.20,36			B.
	β Cancri R.....	1.16,1	18,9	22,7	12,9	18,8	17,1		9,788		69.6.22,37				55,35	80.21.22,78			B.
	β Cancri.....	2.53,9	55,1	61,9	51,9	57,2	56,0		9,788	+2	334.13.0,95				55,35	80.21.22,50			B.
	(g) Iris.....	1.49,0	50,9	57,0	46,3	51,2	49,6			+4	341.21.51,17	30,176	39,0	35,5	71,39	87.30.28,76			B.
Feb. 6	Zenith Point R...	4.34,4	33,9	40,2	31,7	35,5	35,4	+5,3	9,722		111.39.41,80								B.
Feb. 8	(k) Hebe.....	0.6,0	11,0	14,0	5,0	10,2	7,0	+4,5	7,881	+2½	332.25.53,57	30,165	43,4	41,0	51,62	78.34.11,39			T.
	(l) Bessel v. 1204...	0.19,9	23,6	26,3	17,0	23,9	20,9				358.0.21,98				135,96	104.10.4,14			T.
	χ ³ Orionis.....	0.48,1	47,3	55,0	43,3	51,1	46,4				324.10.48,65				38,18	70.18.53,03			T.
	(d) Bessel v. 1460...	3.47,6	51,0	55,5	44,4	51,3	46,9				336.43.49,27				59,99	82.52.15,46			T.
	B.A.C. 2042.....	2.37,2	37,2	43,7	33,3	38,9	37,0				320.2.38,28				32,36	66.10.36,84			T.
	(d)(m) H. C. 12217...	4.55,2	58,0	62,0	52,9	56,9	54,0			+2	320.4.56,75				32,41	66.12.55,36			T.
	(d)(n) B.A.C. 2118...	3.58,1	62,1	66,8	56,9	63,0	59,4				338.49.0,90				64,50	84.57.31,60			T.
	Bessel vi. 990....	1.27,0	29,2	34,1	24,6	30,6	27,4				357.51.29,03				135,02	104.1.10,25			T.
	(d) Bessel vi. 1351...	4.35,3	39,2	43,6	33,4	41,4	35,6				358.24.38,03	30,170	42,4	40,0	138,89	104.34.23,12			T.
	(d)(o) 5 Cancri.....	4.57,3	59,2	65,0	55,8	60,4	58,0			+2½	326.59.59,56	30,186	40,6	39,0	42,66	73.8.8,42			T.
	(d)(g) Iris.....	4.33,7	35,5	39,3	29,9	34,1	32,2				340.54.34,05	30,250	39,5	38,2	70,03	87.3.10,28			T.
Feb. 10	Bessel III. 278...	0.35,9	40,0	42,9	33,6	40,2	36,8				352.10.38,33	30,359	48,0	47,8	104,78	98.19.49,31			T.
	Bessel III. 442...	2.22,5	26,3	30,2	22,4	28,4	24,3				352.12.26,05				104,91	98.21.37,16			T.
	o Persei.....	3.35,5	36,6	43,9	34,3	39,3	36,0			+1½	310.23.38,37				20,16	56.31.24,73			T.
	(p) * R. 3 ^h . 36 ^m . 24 ^s ...	2.49,9	51,2	57,8	47,0	52,0	49,9			+½	309.7.51,76				18,71	55.15.36,67			T.
	Bessel III. 924....	4.1,1	5,1	12,1	0,0	8,1	3,9				353.49.5,67				112,09	99.58.23,96			T.
	Bessel III. 965....	2.27,9	31,9	36,9	26,9	34,4	30,2			+2	354.2.31,62				113,15	100.11.50,97			T.
	H. C. 8705.....	4.24,4	22,5	31,8	21,9	27,3	25,0			+¾	323.29.26,18	30,430	46,1	44,1	37,26	69.37.29,64			T.
	H. C. 8798.....	0.11,0	12,2	16,1	7,9	14,1	11,9				323.15.12,23				36,92	69.23.15,35			T.
	(d) H. C. 9058.....	4.11,1	13,4	15,4	6,1	10,7	8,3			+½	300.19.10,76				9,14	46.26.46,10			T.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) This Zenith Point was obtained Dec. 20, 1848. (b) Unsatisfactory. The glasses of the eye-piece were foul. (c) 'Good bisection.' (d) Negative correction for Runs. (e) Faint. (f) 'Very faint: not good.' (g) 'Good.' (h) The circle reading has been diminished by 5'. (i) Cloudy. (k) The micrometer reading for another object of equal magnitude 15^s distant, was 10",000. The sky had recently become clear. (l) Bad night for observing, the stars being much diffused. Too high wind for Reflection observations. (m) 'Unsatisfactory.' (n) A rich field. A faint star south-preceding, and two of the 9th Mag. north-following. (o) Faint and diffused. (p) Too much day-light for a star of 10th Mag.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
Feb. 10	H. C. 9228	2.25,2	26,9	31,9	22,9	27,0	26,4				322.32.27,08	30,430	46,1	44,1	35,90	68.40.29,18	T.
	Bessel iv. 1199 ...	0.28,3	30,0	34,5	25,1	30,8	29,7				330.10.29,80				47,76	76.18.43,76	T.
	(a)* R. 4 ^h . 58 ^m . 48 ^s ..	4.34,9	36,8	39,1	30,6	33,9	32,9				298.19.34,63				7,02	44.27.7,85	T.
	(b)* R. 5 ^h . 11 ^m . 38 ^s ..	1.56,9	58,6	63,3	53,5	59,1	57,4		+1 3/4		321.11.58,62	30,433	45,7	44,0	34,03	67.19.58,85	T.
	(c)* R. 5 ^h . 18 ^m . 10 ^s ..	3.47,9	48,1	56,0	45,3	50,9	49,1		+1		320.53.50,18				33,61	67.1.49,99	T.
	(d) Rumker 1445.	1.44,9	46,9	52,3	42,9	47,8	43,9		+2		320.46.46,98				33,45	66.54.46,63	T.
	(a) ε Orionis	4.36,1	39,9	43,4	35,0	41,1	36,6				345.9.38,63				81,01	91.18.25,84	T.
	(e) Hebe	2.49,9	52,3	59,0	47,4	54,7	50,9		14,971	+1 3/4	332.6.9,38	30,450	45,3	44,0	51,18	78.14.26,76	T.
	H. C. 13279	1.13,2	13,3	17,9	9,5	12,9	13,1			+1	319.26.13,57				31,76	65.34.11,53	T.
	ζ Geminorum. R.	3.51,4	54,0	58,4	50,2	57,6	54,4		8,403		80.14.28,24				36,84	69.12.58,40	T.
	ζ Geminorum.	4.17,0	14,1	22,9	12,8	18,9	18,6		8,403		323.4.51,35				36,84	69.12.54,39	T.
	Piazzi VI. 328 ...	3.41,5	41,9	49,5	38,8	46,3	43,9		8,403	+1 1/4	358.29.17,46				140,05	104.39.3,71	T.
(c)(f) Iris	1.14,0	15,8	18,9	11,3	15,4	15,3				340.46.15,30	30,458	41,3	40,2	69,87	86.54.51,37	T.	
Feb. 12	(c)(g) Hebe.	0.37,8	40,3	45,8	37,0	39,6	38,9			+4	331.45.40,98	30,560	41,1	33,3	51,90	77.53.58,33	B.
	Iris	2.34,7	24,0	31,6	21,4	26,5	24,7			+4	340.37.27,85	30,490	37,3	29,8	71,13	86.46.4,43	B.
Feb. 13	(e) Iris.	2.53,0	54,0	61,5	49,6	54,1	53,3			+4	340.32.55,02	30,554	41,8	38,3	69,82	86.41.30,29	B.
Feb. 15	Bessel iii. 965	2.30,0	33,7	38,8	29,2	35,4	33,1				354.2.33,75	30,470	47,7	47,6	113,61	100.11.52,81	T.
	Groombridge 851 ..	3.50,1	52,0	59,1	48,0	54,5	51,6				302.3.53,13				10,96	48.11.29,54	T.
	* R. 4 ^h . 32 ^m . 29 ^s ..	3.34,1	34,0	41,6	32,4	38,0	36,0				323.33.36,55				37,14	69.41.39,14	T.
	H. C. 9228	2.26,8	26,6	30,9	22,6	29,0	27,6				322.32.27,62	30,470	46,4	45,8	35,82	68.40.28,89	T.
	B.A.C. 1542	2.49,4	50,0	56,9	48,6	53,0	51,4				329.42.51,98				46,87	75.51.4,30	T.
	Bessel iv. 1199 ...	0.30,2	33,4	35,7	29,0	34,7	30,9			+1	330.10.32,44				47,65	76.18.45,54	T.
	(h)* R. 5 ^h . 11 ^m . 38 ^s ..	1.57,2	59,3	64,4	54,8	60,8	58,7			+2	321.11.59,75				33,94	67.19.59,14	T.
	(a)* R. 5 ^h . 18 ^m . 10 ^s ..	3.47,4	53,2	55,4	46,1	50,9	48,6			+1 1/2	320.53.50,24				33,53	67.1.49,22	T.
	(a) 119 Tauri	3.25,0	29,1	30,0	22,1	28,0	25,0			+1	325.23.26,35				39,98	71.31.31,78	T.
	(i) Hebe	3.2,1	4,2	10,1	0,4	5,3	3,9			+4	331.18.5,78	30,468	45,8	45,1	49,67	77.26.20,90	T.
	(k) Rumker 1654.	0.32,2	34,3	37,6	29,8	34,4	31,9				320.10.33,45				32,59	66.18.31,49	T.
	(l) Rumker 1656. ....	...	...	...	...	...	...		16,031		320.8.27,63				32,54	66.16.25,62	T.
	Bessel v. 1460	3.46,9	49,0	55,2	46,0	51,4	49,1				336.43.50,17				60,08	82.52.15,70	T.
	68 Orionis	2.55,0	54,0	60,8	50,6	56,1	54,0				324.2.55,52				38,04	70.10.59,01	T.
	(m)* R. 6 ^h . 14 ^m . 2 ^s ..	0.14,9	17,5	20,1	11,3	16,6	13,9			+1 1/4	319.40.15,75				31,91	65.48.13,11	T.
	* R. 6 ^h . 17 ^m . 48 ^s ..	3.7,0	8,6	14,9	4,3	10,5	7,6			+2 1/4	320.3.9,38				32,42	66.11.7,25	T.
	H. C. 12358	3.53,7	52,5	61,3	50,6	57,0	54,8		14,696	+2 1/4	323.32.17,88				37,30	69.40.20,63	T.
	ν Geminorum .....	...	...	...	...	...	...			+1	323.33.55,62				37,34	69.41.58,41	T.
	Argelander 7143.	1.58,6	59,3	64,1	55,1	61,0	59,3				292.16.59,87	30,462	44,8	43,5	0,65	38.24.25,97	T.
* R. 6 ^h . 36 ^m . 24 ^s ..	0.29,8	30,9	34,6	26,0	31,4	29,9			+1	319.35.30,52				31,90	65.43.27,87	T.	
* R. 6 ^h . 37 ^m . 17 ^s ..	0.29,8	30,9	34,6	26,0	31,4	29,9		3,860	+1	319.37.38,68				31,95	65.45.36,08	T.	
H. C. 13279	1.12,1	13,0	18,2	8,8	14,0	13,2				319.26.13,40				31,69	65.34.10,54	T.	
Piazzi VI. 328	4.13,6	15,0	24,2	13,9	21,7	18,0			+1	358.29.18,33				139,73	104.39.3,51	T.	
Feb. 16	(n) H. C. 9228	2.26,8	26,5	32,4	23,2	30,0	28,0	+4,2		+1	322.32.28,24	30,404	42,1	41,3	36,08	68.40.29,77	T.
	(o) B.A.C. 1542	2.51,0	51,6	58,1	48,1	52,3	52,8				329.42.52,72				47,21	75.51.5,38	T.
	m Tauri	0.46,5	48,0	53,8	43,0	48,9	46,7				325.25.47,93				40,33	71.33.53,71	T.
	(p) Bessel v. 12	4.23,5	25,9	29,1	20,4	25,6	25,0			+1 1/2	330.4.25,61				47,82	76.12.38,88	T.
	Bessel v. 11 .....	...	...	...	...	...	...		11,426		330.3.56,37				47,80	76.12.9,62	T.
	n Tauri	0.57,0	58,6	64,0	54,3	60,6	59,0				321.55.59,05				35,21	68.3.59,71	T.
	H. C. 10208	0.22,0	23,0	26,9	17,8	22,3	22,4				321.15.22,45				34,26	67.23.22,16	T.
	(g) Rumker 1445.	1.45,2	46,1	52,9	42,9	48,1	46,0				320.46.47,12				33,60	66.54.46,17	T.
	(a) B.A.C. 1801	4.28,9	31,0	34,6	24,5	30,1	28,4				320.44.29,58	30,400	39,9	38,3	33,76	66.52.28,79	T.
	(r) Hebe	3.46,0	46,0	54,6	44,2	49,4	48,0				331.8.48,59				49,99	77.17.4,01	T.
	Bessel v. 1204	0.19,1	20,3	25,4	15,9	23,9	20,3				358.0.20,87				137,79	104.10.4,11	T.
	η Leporis	2.30,5	30,6	38,0	27,9	35,0	32,1			+2 1/2	358.2.32,46				138,03	104.12.15,94	T.
	Bessel v. 1460	3.45,4	45,1	52,3	43,0	48,8	48,0				336.43.47,63				60,80	82.52.13,88	T.
	68 Orionis	2.55,0	52,4	60,2	50,9	55,3	54,6				324.2.55,13				38,50	70.10.59,08	T.
	* R. 6 ^h . 14 ^m . 2 ^s ..	0.15,4	15,3	20,2	10,4	15,1	15,0				319.40.15,27	30,408	39,9	37,0	32,38	65.48.13,10	T.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Negative correction for Runs. (b) Uncertain observation on account of the faintness of the star, which was considered to be of 11th Mag. (c) Very faint: of 10th Mag. (d) The south-preceding of two. Uncertain observation, the star being very faint. (e) 'Good observation.' (f) A star of the same Mag. and N.P.D. followed about 30". (g) Apparently an error in the N.P.D. of 1' in defect. (h) Too faint. (i) Taken hurriedly, the Planet not being seen before on account of moisture on the eye-glass. The Circle reading was less by 10". (k) 'The south-preceding of two.' (l) The following star. (m) Several in the field. (n) Clouds had cleared off. (o) Very faint. (p) 'The southern of two of equal magnitude.' They were excessively faint, and the bisecting were doubtful. (q) 'The southern of two.' (r) 'Of 9,10 Mag. and getting rapidly fainter: good observation.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refract.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						"	"		"	"	"	
Feb. 16	Bessel vi. 544	0.54,4	56,4	63,3	51,5	59,0	55,2				358.15.56,77	30,408	39,9	37,0	139,91	104.25.42,13			T.
	(a) B.A.C. 2118	3.57,6	56,5	66,3	55,3	61,1	58,8			+1	338.48.59,84				65,58	84.57.30,87			T.
	Bessel vi. 809	2.42,9	43,4	51,9	40,1	47,2	44,9				358.32.45,47				141,78	104.42.32,70			T.
	Bessel vi. 990	1.24,1	25,8	32,0	21,9	27,2	27,0				357.51.26,53				137,25	104.1.9,23			T.
	(b) * R. 6 ^h . 37 ^m . 17 ^s . .	2.34,1	33,3	42,2	30,4	36,1	35,7				319.37.35,67				32,32	65.45.33,44			T.
	(c) Bessel vi. 1351	4.36,9	38,9	45,1	33,6	41,2	37,5				358.24.38,82				140,87	104.34.25,14			T.
	(c) Piazzzi VI. 328	4.15,5	18,2	24,8	13,0	18,8	16,9				358.29.17,75				141,39	104.39.4,59			T.
	(d) Iris	3.40,0	39,9	46,5	37,4	42,3	42,8				340.18.42,00	30,419	39,5	37,3	69,08	86.27.16,53			T.
	Zenith Point R.	4.39,0	38,1	45,7	36,0	39,6	39,5	+5,3	9,900		111.39.42,55								T.
Feb. 17	Bessel iii. 965	2.29,3	33,0	38,4	28,5	35,9	32,1	+4,2			354.2.33,22	30,486	45,0	42,8	114,80	100.11.53,47			T.
	H. C. 8479	4.20,5	23,2	31,5	20,2	27,4	25,2				355.14.25,28	30,493	43,9	42,3	120,99	101.23.51,72			T.
	* R. 4 ^h . 32 ^m . 29 ^s . . .	3.35,0	34,0	41,8	32,9	37,8	36,7				323.33.36,87				37,58	69.41.39,90			T.
	H. C. 9058	4.10,7	9,0	16,8	5,9	11,1	10,9				300.19.11,32				9,20	46.26.45,97			T.
	H. C. 9228	2.27,6	27,0	32,9	25,1	29,8	28,1				322.32.28,77				36,11	68.40.30,33			T.
	Bessel iv. 1199	0.29,9	32,0	35,3	28,0	33,9	31,0				530.10.31,75				48,03	76.18.45,23			T.
	(c) * R. 4 ^h . 58 ^m . 49 ^s . .	4.35,9	37,3	41,0	32,2	35,1	35,0			+1/4	298.19.36,04				7,06	44.27.8,55			T.
	(c) H. C. 9656	4.40,0	41,2	45,8	36,2	39,3	37,2				298.24.39,90				7,15	44.32.12,50			T.
	108 Tauri	0.39,5	42,0	48,0	38,1	43,4	41,4				321.45.42,58		42,1	40,2	35,15	67.53.43,18			T.
	(e) * R. 5 ^h . 11 ^m . 38 ^s . .	1.56,8	58,0	64,0	53,0	57,8	56,9			+2 1/2	321.11.58,41				34,36	67.19.58,22			T.
	H. C. 10208	0.21,1	23,3	26,1	18,5	22,9	21,2				321.15.22,23				34,44	67.23.22,12			T.
	(f) H. C. 10816	2.36,8	39,6	45,0	35,0	41,1	39,8				335.57.39,92	30,490	41,4	39,1	59,26	82.6.4,63			T.
	(g) Hebe	4.26,0	25,0	34,1	24,6	29,1	30,0			+2	330.59.29,12				49,78	77.7.44,35			T.
	Bessel v. 1204	0.16,9	21,1	24,9	15,4	21,6	18,1				358.0.19,72				137,96	104.10.3,13			T.
	Rumker 1654	0.31,3	32,8	37,1	27,9	32,1	31,0			+1 1/2	320.10.32,25				33,02	66.18.30,72			T.
	* R. 6 ^h . 14 ^m . 2 ^s	0.14,1	15,0	19,0	9,6	14,0	14,1				319.40.14,33	30,489	39,0	36,0	32,54	65.48.12,32			T.
	* R. 6 ^h . 17 ^m . 48 ^s . . .	3.7,5	9,0	15,5	4,0	10,1	10,1				320.3.9,82				33,06	66.11.8,33			T.
	Bessel vi. 809	2.40,5	41,6	49,9	39,5	46,3	44,0				358.32.44,02				142,46	104.42.31,93			T.
	Argelander 7143	1.57,4	57,0	62,8	54,7	56,6	57,1				292.16.57,88				0,66	38.24.23,99			T.
	* R. 6 ^h . 36 ^m . 24 ^s . . .	0.28,1	28,3	33,8	24,8	28,6	27,8				319.35.28,63				32,43	65.43.26,51			T.
	* R. 6 ^h . 37 ^m . 17 ^s . . .	...	...	...	...	...	...			+1 1/2	319.37.35,53				32,48	65.45.33,46			T.
	H. C. 13279	1.12,0	11,8	18,8	9,4	13,7	13,3			+1 1/4	319.26.13,33				32,22	65.34.11,00			T.
	(c)(h) Piazzzi VI. 328 . .	4.11,0	11,4	22,1	10,1	17,0	15,8				358.29.15,15				142,07	104.39.2,67			T.
Feb. 19	(i) Hebe	1.9,6	13,0	15,1	8,8	13,4	9,8				330.41.11,78	29,870	48,8	49,0	47,27	76.49.24,50			T.
	(k) η Leporis	2.34,8	37,9	43,1	33,8	40,7	37,4			+2 1/2	358.2.38,08				132,64	104.12.16,17			T.
	χ ² Orionis	0.47,9	51,0	53,0	45,1	51,6	49,0				324.10.49,72				37,19	70.18.52,36			T.
	Bessel v. 1460	3.48,9	50,3	55,5	47,2	54,0	50,8			+1 1/2	336.43.51,69				58,43	82.52.15,57			T.
	B.A.C. 1994	2.25,0	27,0	31,9	24,5	30,7	27,0				350.22.28,02				95,73	96.31.29,20			T.
	(l) * R. 6 ^h . 14 ^m . 2 ^s . . .	0.16,0	20,3	22,3	14,1	18,8	15,6				319.40.17,90				31,03	65.48.14,38			T.
	(c) H. C. 12217	4.56,0	61,5	61,8	55,1	60,1	56,2			+1	320.4.58,52				31,57	66.12.55,54			T.
	* R. 6 ^h . 17 ^m . 48 ^s . . .	...	...	...	...	...	...			15,096	320.3.12,14				31,53	66.11.9,12			T.
	(m) B.A.C. 2118	3.59,6	60,3	68,1	58,5	64,4	61,2				338.49.2,58	29,887	48,5	48,8	62,90	84.57.30,93			T.
	H. C. 12887	1.4,7	8,7	11,1	4,8	10,5	6,0				340.51.7,78				67,54	86.59.40,77			T.
	(n) * R. 6 ^h . 36 ^m . 24 ^s . .	0.29,8	31,2	35,9	26,2	32,0	30,5			+2 1/4	319.35.31,34				30,96	65.43.27,75			T.
	(n) * R. 6 ^h . 37 ^m . 17 ^s . .	...	...	...	...	...	...			3,887	319.37.38,53				31,01	65.45.34,99			T.
	(o) H. C. 13279	1.14,0	15,1	19,8	12,1	16,0	14,1				319.26.15,37				30,76	65.34.11,58			T.
	Piazzzi VI. 328	4.20,7	22,0	30,2	20,1	27,0	24,8				358.29.24,75				135,62	104.39.5,82			T.
	(p) Iris	3.37,7	38,0	45,0	35,9	42,6	40,9				340.3.40,52	29,927	45,5	45,1	66,29	86.12.12,26			T.
Feb. 20	Iris	3.33,1	32,0	39,7	30,3	35,9	35,7				339.58.34,95	29,679	41,1	37,0	66,66	86.7.7,06			T.
Feb. 22	(q) Hebe	3.21,0	21,7	27,4	19,1	24,2	23,4			+1 1/2	330.14.13,97	29,689	45,1	44,3	46,68	76.22.26,07			T.
	Bessel v. 1284	1.24,9	27,1	30,8	22,9	28,9	26,1				336.1.26,98				57,22	82.9.49,62			T.
	χ ² Orionis	0.47,0	48,0	52,8	43,8	50,3	47,7				324.10.48,38				37,32	70.18.51,12			T.
	5 Geminorum	0.15,8	18,0	20,9	13,9	19,1	16,0				319.25.17,33				30,82	65.33.13,57			T.
	8 Geminorum	1.19,9	21,4	25,5	16,1	24,0	20,4				319.51.21,40				31,39	65.59.18,21			T.
	B.A.C. 2042	2.37,0	37,1	43,4	32,8	41,4	38,2				320.2.38,68				31,64	66.10.35,74			T.
	(c) H. C. 12217	4.57,6	59,6	63,5	54,2	60,1	56,4				320.4.58,57				31,69	66.12.55,68			T.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) A great number of stars in the field; this of 7,8 Mag. (b) The first and most southern of three equal stars in a straight line. (c) Negative correction for Runs. (d) 'Good: no object near this.' (e) Much too faint for certain observation, would bear no illumination. (f) 'A fainter of greater N.P.D. precedes.' (g) Excessively faint. (h) 'Unsatisfactory.' (i) 'Of the last degree of faintness.' The clouds cleared off shortly before this observation, but objects appeared faint and diffused from the prevalence of vapour. (k) Indefinite. (l) Extremely faint. (m) The reading of microscope A has been diminished by 1". (n) Both too faint to observe with certainty. (o) Very unsteady. (p) Just visible occasionally: too faint for accurate bisection. (q) A somewhat brighter object of less N.P.D. by 50" preceded about 1 1/2".

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refract.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						"	"		"	"	"	
Feb. 22	Bessel vi. 544. ...	1. 0,8	3,0	9,6	59,0	6,7	2,0			+1	358. 16. 3,61	29,689	45,1	44,3	134,54	104. 25. 43,57	T.		
	Bessel vi. 809.	2. 46,1	48,9	56,5	45,8	52,4	49,4			+1	358. 32. 50,22	29,695	44,7	43,8	136,52	104. 42. 32,16	T.		
	(a) Argelander 7143. ...	1. 58,4	59,3	64,4	55,5	59,0	59,8				292. 16. 59,68				0,63	38. 24. 25,73	T.		
	Bessel vi. 1041. ...	3. 22,7	22,1	28,0	19,1	26,1	24,9				340. 28. 24,30				66,91	86. 36. 56,63	T.		
	H. C. 13313.	0. 30,9	33,4	37,0	28,0	34,0	32,3				319. 40. 32,67				31,19	65. 48. 29,28	T.		
	(b) B.A.C. 2283.	3. 28,1	27,1	34,4	25,0	31,0	30,0				320. 13. 29,75				31,91	66. 21. 27,08	T.		
	(c) * R. 6 ^h . 56 ^m . 2 ^s	0. 10,9	13,4	16,8	8,6	14,6	11,0				319. 55. 12,58				31,51	66. 3. 9,51	T.		
	(d) 48 Geminorum. ...	4. 36,1	38,7	41,5	33,2	39,7	35,9				319. 29. 37,47				30,95	65. 37. 33,84	T.		
	(e) Rumker 2152.	0. 22,1	24,0	28,1	19,9	25,8	21,2				319. 45. 23,57	29,698	44,4	43,7	31,31	65. 53. 20,30	T.		
	58 Geminorum. ...	3. 16,9	16,0	23,5	14,6	20,0	18,0			+1	320. 38. 18,78				32,47	66. 46. 16,67	T.		
	(d) H. C. 14722. ...	4. 55,8	57,9	62,2	53,3	58,9	56,9				320. 29. 57,48				32,29	66. 37. 55,19	T.		
	79 Geminorum. ...	1. 39,0	39,6	45,0	36,9	43,8	40,1				323. 11. 40,97				35,98	69. 19. 42,37	T.		
	(g) Iris.	3. 9,1	9,2	16,6	6,8	12,1	12,3				339. 48. 11,47	29,720	42,5	41,7	65,70	85. 56. 42,59	T.		
Feb. 25	Zenith Point R. ...	4. 40,8	38,9	48,1	36,6	40,7	41,0	+4,5	9,959		111. 39. 42,58						T.		
Feb. 26	(h) Bessel v. 802.	3. 8,2	9,8	14,0	7,6	9,9	10,5	+4,2		+2	336. 38. 10,43	29,764	39,9	34,7	59,78	82. 46. 35,63	T.		
	(i) * R. 5 ^h . 34 ^m . 47 ^s	2. 17,0	18,3	23,0	17,2	18,4	19,0				336. 17. 19,21				59,06	82. 25. 43,69	T.		
	(d) Hebe.	4. 33,3	36,6	38,9	32,4	33,9	34,3				329. 39. 34,83				46,77	75. 47. 47,02	T.		
	(l) Bessel v. 1284.	1. 25,1	26,9	32,3	23,5	27,8	27,5				336. 1. 27,38				58,52	82. 9. 51,32	T.		
	(m) H. C. 11457.	2. 21,9	22,0	28,1	20,0	24,0	24,9				334. 42. 23,82				55,89	80. 50. 45,13	T.		
	5 Geminorum.	0. 17,0	17,4	22,9	15,3	16,6	16,3				319. 25. 17,63				31,52	65. 33. 14,57	T.		
	8 Geminorum.	1. 19,7	20,0	26,0	16,8	21,7	20,9				319. 51. 21,03				32,10	65. 59. 18,55	T.		
	B.A.C. 2042.	2. 37,3	37,6	44,4	34,1	39,3	38,8				320. 2. 38,95				32,36	66. 10. 36,73	T.		
	(d) H. C. 12217.	4. 56,4	58,4	63,4	53,9	58,2	55,3			+1	320. 4. 57,62				32,41	66. 12. 55,45	T.		
	* R. 6 ^h . 17 ^m . 48 ^s. ...	...	...	...	...	...	...		15,183		320. 3. 9,47				32,37	66. 11. 7,26	T.
	(d) B.A.C. 2118.	3. 59,0	62,4	65,9	57,6	60,0	60,0				338. 49. 0,67	29,800	39,2	33,6	64,73	84. 57. 30,82	T.		
	Bessel vi. 990.	1. 29,8	30,3	36,5	26,7	32,7	31,3				357. 51. 31,43				135,49	104. 1. 12,34	T.		
	H. C. 12887.	1. 3,6	5,8	10,3	2,1	5,9	5,0				340. 51. 5,60				69,52	86. 59. 40,54	T.		
	Bessel vi. 1351.	4. 38,9	39,0	51,0	38,6	44,3	43,7				358. 24. 43,23				139,07	104. 34. 27,72	T.		
	(n) * R. 6 ^h . 48 ^m . 3 ^s	4. 20,8	17,8	28,8	16,4	21,0	22,1			+1	319. 44. 21,84				32,06	65. 52. 19,32	T.		
	(o) * R. 6 ^h . 53 ^m . 45 ^s. ...	...	...	...	...	...	...		12,384		319. 43. 32,03				32,04	65. 51. 29,49	T.
	(p) * R. 6 ^h . 56 ^m . 4 ^s	1. 42,0	43,0	49,8	39,0	44,6	42,8				319. 56. 43,77				32,34	66. 4. 41,53	T.		
	(d) H. C. 13804.	4. 40,5	42,3	46,1	36,9	41,8	39,4			+1	319. 59. 41,20	29,812	39,3	33,5	32,42	66. 7. 39,04	T.		
	Rumker 2152.	0. 21,5	23,6	28,2	19,9	24,7	22,7			+1	319. 45. 23,50				32,10	65. 53. 21,02	T.		
	λ Geminorum.	3. 33,0	31,0	39,3	28,8	34,0	34,0			+2	327. 3. 33,86				42,72	73. 11. 42,00	T.		
	58 Geminorum. ...	3. 17,0	15,0	24,4	13,9	19,0	18,9				320. 38. 18,50				33,30	66. 46. 17,22	T.		
	* R. 7 ^h . 19 ^m . 58 ^s	0. 49,8	50,4	57,1	46,2	51,0	49,1				319. 45. 50,72				32,11	65. 53. 48,25	T.		
	(d) H. C. 14722.	4. 56,4	57,9	63,8	53,9	58,3	56,0				320. 29. 57,72				33,11	66. 37. 56,25	T.		
	H. C. 15112.	0. 59,0	60,0	67,0	55,9	60,4	59,1				320. 21. 0,37				32,91	66. 28. 58,70	T.		
	(q) Iris.	1. 54,6	55,0	61,9	53,4	57,3	56,2				339. 26. 56,67	29,857	37,6	32,5	66,46	85. 35. 28,55	T.		
Feb. 27	Bessel vi. 1041. ...	3. 20,9	20,0	27,9	18,5	23,6	24,0			+1	340. 28. 22,96	29,971	38,0	35,7	68,68	86. 36. 57,06	T.		
	(d) Bessel vi. 1351. ...	4. 42,0	43,8	50,4	41,1	45,9	43,1				358. 24. 44,35				139,25	104. 34. 29,02	T.		
	B.A.C. 2283.	3. 27,3	25,1	34,0	23,0	28,0	27,9				320. 13. 28,03				32,76	66. 21. 26,21	T.		
	(r) * R. 6 ^h . 56 ^m . 4 ^s	1. 41,4	40,2	46,6	36,0	42,0	41,2				319. 56. 41,47				32,38	66. 4. 39,27	T.		
	(d) H. C. 13804.	4. 39,8	40,6	45,6	35,1	41,8	39,2				319. 59. 40,32				32,45	66. 7. 38,19	T.		
	Rumker 2152.	0. 23,3	22,6	29,3	18,0	23,5	21,5				319. 45. 23,08				32,12	65. 53. 20,62	T.		
	λ Geminorum.	3. 31,3	29,1	38,8	27,6	32,6	34,7				327. 3. 32,83				42,75	73. 11. 41,00	T.		
	58 Geminorum. ...	3. 17,0	15,0	23,7	13,5	17,5	18,9				320. 38. 18,07				33,32	66. 46. 16,81	T.		
	* R. 7 ^h . 19 ^m . 58 ^s	0. 51,0	51,3	58,1	47,1	52,0	52,1			+1	319. 45. 52,07	29,970	37,7	34,6	32,21	65. 53. 49,70	T.		
	(d) H. C. 14722.	4. 55,8	57,0	64,0	52,6	58,2	57,1				320. 29. 57,43				33,21	66. 37. 56,06	T.		
	H. C. 15112.	0. 59,8	58,4	67,0	55,0	61,2	60,4				320. 21. 0,43				33,00	66. 28. 58,85	T.		
	84 Geminorum. ...	4. 1,7	59,9	9,7	57,2	3,3	1,7				321. 9. 2,82				34,11	67. 17. 2,35	T.		
	Iris.	1. 33,2	32,4	40,7	29,1	34,2	35,0				339. 21. 34,32	29,942	35,6	33,4	66,31	85. 30. 6,05	T.		
Feb. 28	H. C. 15112.	0. 58,9	57,7	66,1	54,1	59,6	59,8				320. 20. 59,50	29,210	35,7	32,5	32,31	66. 28. 57,23	T.		
	84 Geminorum. ...	4. 2,9	59,6	10,3	57,6	2,9	4,0				321. 9. 3,45				33,39	67. 17. 2,26	T.		
	(d) 5 Caneri.	4. 59,8	59,7	67,1	55,8	61,0	60,9				327. 0. 0,72				41,86	73. 8. 8,00	T.		
	(d) B.A.C. 2759.	4. 27,6	26,9	33,2	22,5	27,8	27,4				325. 44. 27,48	29,212	34,8	32,3	39,96	71. 52. 32,86	T.		
	φ ³ Caneri. sp.	1. 49,7	48,3	57,0	45,0	49,9	50,3				316. 26. 50,28				27,28	62. 34. 42,98	T.		

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Doubtful observation: the shutters could not be fully opened and the star was faint.
 (b) 'Mag. 7: no object near this.'
 (c) Of Mag. 10: too faint for certainty. An object of the same mag. and greater N.P.D. follows about 2'.
 (d) Negative Correction for Runs.
 (e) 'Mag. 9: no star near.'
 (f) 'Mag. 7.8.'
 (g) 'Good: the Planet bright.'
 (h) Too faint to bear illumination. No object was seen near this.
 (i) Too faint for accuracy.
 (j) 'The R.A. was deduced from a Transit observation taken at two wires.'
 (k) 'Mag. 11,12.' The observation was considered good.
 (l) 'The southern of two.'
 (m) Very faint.
 (n) The R.A. is approximate.
 (o) This is Bessel Z. 348, 6^h. 51^m. 46^s.
 (p) This appears to be the south following object noticed Feb. 22.
 (q) Scarcely visible from cloud. No other object in the field.
 (r) Excessively faint. 'The southern of two.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"		r.		"	Inch.	"	"		"	
Feb. 28	Iris.	1. 16,1	14,7	24,9	12,7	16,1	15,1	+4,2			339. 16. 16,78	29,212	32,6	31,3	64,79	85. 24. 46,99	T.
Mar. 2	Iris.	3. 24,1	19,4	26,2	24,0	23,6	22,1	+5,1			46. 8. 23,82	30,218	42,1	40,2	65,35	85. 14. 8,92	T.
Mar. 3	Zenith Point R..	2. 35,0	29,9	37,0	36,9	32,0	32,6		10,292		178. 42. 28,25						T.
	(a) Hebe.	1. 14,8	13,9	16,2	17,3	16,0	13,1			+2	36. 1. 15,78	30,384	44,4	42,9	45,78	75. 6. 41,31	T.
	5 Geminorum....	3. 2,8	59,2	6,7	2,0	3,7	59,7				26. 28. 2,85				31,63	65. 33. 14,23	T.
	8 Geminorum....	4. 6,1	1,6	11,9	6,0	7,7	3,5				26. 54. 6,83				32,21	65. 59. 18,79	T.
	B.A.C. 2042.....	0. 25,4	22,5	25,0	25,3	24,0	22,6				27. 5. 24,20				32,47	66. 10. 36,42	T.
	* R. 6 ^h . 17 ^m . 48 ^s..	...	...	...	...	...	...		8,549		27. 5. 54,47				32,48	66. 11. 6,70	T.
	(b) Bessel vi. 544....	3. 16,1	13,8	19,8	17,7	17,0	13,2		8,549	+2½	65. 18. 46,86				138,08	104. 25. 44,69	T.
	Bessel vi. 809....	0. 35,9	34,9	36,1	38,0	36,1	33,0				65. 35. 35,77				139,94	104. 42. 35,46	T.
	(c) Bessel vi. 990....	4. 17,1	17,6	18,9	18,6	17,1	14,9				64. 54. 17,25	30,385	43,5	42,2	135,67	104. 1. 12,67	T.
	Bessel vi. 1041...	1. 10,0	8,2	11,6	11,9	10,7	7,9			+1	47. 31. 10,26				68,69	86. 36. 58,70	T.
	Argelander 7375..	2. 54,4	47,2	58,9	53,0	53,4	49,9			+1	358. 27. 53,49				0,24	37. 32. 33,00	T.
	B.A.C. 2283.....	1. 15,4	11,4	16,0	13,1	14,0	11,0				27. 16. 13,68				32,76	66. 21. 26,19	T.
	(d)* R. 6 ^h . 56 ^m . 2 ^s ...	2. 58,6	53,9	62,7	56,4	57,8	54,3			+1	26. 57. 57,80				32,35	66. 3. 9,90	T.
	H. C. 13804.....	2. 29,0	22,9	30,9	26,0	28,2	24,0				27. 2. 27,32				32,45	66. 7. 39,52	T.
	λ Geminorum....	1. 20,0	17,1	21,3	17,9	17,1	16,8				34. 6. 18,58	30,400	42,7	41,5	42,84	73. 11. 41,17	T.
	58 Geminorum...	1. 3,8	1,0	7,0	4,2	3,4	2,9				27. 41. 3,90				33,39	66. 46. 17,04	T.
	H. C. 14722.....	2. 44,0	38,0	45,2	41,0	44,1	39,1			+½	27. 32. 42,39				33,20	66. 37. 55,34	T.
	79 Geminorum...	4. 27,1	18,6	29,4	24,2	25,7	21,3				30. 14. 25,13				36,99	69. 19. 41,87	T.
	Argelander 8355..	0. 44,4	39,0	45,7	43,2	42,6	40,6				357. 45. 42,70				0,99	36. 50. 21,46	T.
Mar. 5	8 Geminorum....	4. 6,0	0,6	9,0	5,1	6,6	0,0				26. 54. 5,25	30,512	47,3	46,0	32,14	65. 59. 17,14	T.
	B.A.C. 2042.....	0. 26,1	22,6	25,8	24,4	24,6	21,5				27. 5. 24,23				32,40	66. 10. 36,38	T.
	Bessel vi. 544....	3. 46,8	45,2	49,7	49,4	47,7	43,6			+½	65. 18. 47,71				137,77	104. 25. 45,23	T.
	Bessel vi. 809....	0. 36,0	35,3	35,1	38,1	36,0	34,4				65. 35. 35,92				139,62	104. 42. 35,29	T.
	(c) H. C. 12887.....	3. 48,0	48,8	47,8	49,3	47,9	47,2				47. 53. 47,97				69,35	86. 59. 37,07	T.
	(c) 11 Canis Majoris..	4. 27,4	27,1	27,2	28,6	27,0	26,0				65. 9. 27,12				136,76	104. 16. 23,63	T.
	(e) Argelander 7375..	2. 54,4	48,9	58,3	54,4	53,5	51,0			+1	358. 27. 54,11				0,24	37. 32. 33,62	T.
	B.A.C. 2283.....	1. 15,1	10,9	15,5	12,8	13,6	11,4				27. 16. 13,42				32,64	66. 21. 25,81	T.
	(f)* R. 6 ^h . 56 ^m . 2 ^s ...	2. 60,5	56,4	63,2	60,6	62,2	56,9			+1½	26. 58. 0,58				32,23	66. 3. 12,56	T.
	* R. 6 ^h . 58 ^m . 4 ^s ...	2. 13,0	9,8	16,6	14,0	13,6	11,0			+1	26. 47. 13,44				31,99	65. 52. 25,18	T.
	Rumker 2152....	3. 8,9	4,8	12,6	9,0	10,0	4,9				26. 48. 8,90	30,532	46,4	45,0	32,09	65. 53. 20,74	T.
	Rumker 2467....	2. 37,2	33,0	40,4	37,2	37,8	35,0				32. 7. 37,22	30,532	44,9	43,4	39,80	71. 12. 56,77	T.
	(c) φ ⁸ Cancri. sp.....	4. 37,2	35,1	37,9	36,1	37,0	36,0				23. 29. 36,48				27,86	62. 34. 44,09	T.
	H. C. 16810.....	1. 8,8	5,9	10,1	7,4	7,9	5,6				33. 31. 7,80				41,93	72. 36. 29,48	T.
	(g) Argelander 9164..	3. 29,7	23,0	34,1	28,6	28,8	24,7				358. 38. 28,75				0,07	37. 43. 8,43	T.
	(h) Iris.	2. 33,0	28,9	33,3	32,9	31,7	30,6				45. 52. 32,17	30,562	43,5	41,4	65,33	84. 58. 17,25	T.
Mar. 6	(i) Iris.	2. 19,4	16,1	18,9	18,2	17,8	18,0		9,906	+4½	45. 47. 20,95	30,200	44,6	43,5	64,09	84. 53. 4,79	T.
Mar. 8	* R. 6 ^h . 53 ^m . 45 ^s ..	1. 22,0	15,4	21,2	19,3	16,6	19,0			+1½	26. 46. 19,23	29,797	37,1	32,6	32,11	65. 51. 31,09	T.
	(k)* R. 6 ^h . 58 ^m . 4 ^s...	...	...	...	...	...	...		7,463		26. 47. 12,06				32,12	65. 52. 23,93	T.
	Rumker 2152....	3. 8,0	2,0	11,0	6,7	6,3	4,7				26. 48. 6,98				32,15	65. 53. 18,88	T.
	(l) λ Geminorum....	1. 22,0	18,0	22,8	21,9	17,8	18,0				34. 6. 20,32				42,78	73. 11. 42,85	T.
Mar. 10	(m) H. C. 12821... ..	2. 53,8	49,8	56,9	57,6	52,2	51,0	+5,7			48. 12. 54,10				71,63	87. 18. 45,56	T.
	B.A.C. 2283.....	1. 17,3	10,2	17,4	14,8	13,4	12,7				27. 16. 14,53				33,34	66. 21. 27,70	T.
	(n)* R. 6 ^h . 58 ^m . 4 ^s ...	2. 14,1	9,0	18,0	14,1	11,4	10,2				26. 47. 13,22				32,67	65. 52. 25,72	T.
	H. C. 13856.....	3. 49,0	44,0	54,5	50,6	47,8	45,8				26. 33. 49,33				32,37	65. 39. 1,53	T.
	(o) Bessel vii. 835....	0. 25,3	21,1	24,9	26,6	22,4	21,0				65. 5. 23,63	30,355	35,7	33,5	139,23	104. 12. 22,69	T.
	Pollux R.....	3. 3,0	58,9	6,9	5,6	1,1	1,6		9,911		154. 53. 5,29				27,03	61. 36. 57,91	T.
	Pollux.....	1. 47,5	42,6	52,5	49,1	46,8	44,0		9,911		22. 31. 49,29					61. 36. 56,15	T.
	Argelander 8355..	0. 45,0	38,6	46,9	45,4	40,3	40,1				357. 45. 42,85				1,01	36. 50. 21,67	T.
	B.A.C. 2683.....	3. 57,8	52,1	62,9	58,0	56,4	53,5			+1½	31. 38. 57,67				39,67	70. 44. 17,17	T.
	B.A.C. 2759.....	2. 12,8	8,1	15,8	12,0	10,8	9,0				32. 47. 11,83				41,41	71. 52. 33,07	T.
	Rumker 2467....	2. 37,0	31,7	41,6	37,0	35,4	33,3				32. 7. 36,50				40,39	71. 12. 56,72	T.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) 'The object faint, but the observation, I think, is good.' Probably this is not the Planet. (b) 'The southern of two.' (c) Negative correction for Runs.
 (d) 'The northern of two.' (e) 'Not good.' (f) Too faint for satisfactory observation. (g) The shutter not well open. (h) 'Good.'
 (i) Observed hurriedly. (k) Two very faint objects north-preceding. (l) This night's observations unsatisfactory: the sky had recently become clear after a heavy snow-storm, and stars were extremely unsteady and badly defined. (m) Misty sky and small stars very faint. (n) Extremely difficult to bisect. A fainter preceded. (o) Unsteady.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for S.	Micrometer Reading.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"					Inch.	"	"			
Mar. 10	(a) \circ Ursæ Majoris R.	1.34,4	29,0	34,5	35,9	29,4	31,8		7,259	+ $\frac{1}{2}$	187.42.29,81	30,355	35,7	33,5	9,70	28.46.56,66	T.
	\circ Ursæ Majoris ...	1.33,3	26,4	35,4	30,9	28,0	28,0		7,259	+1 $\frac{1}{2}$	349.42.28,64					28.46.58,77	T.
	H. C. 16810.....	1.7,7	3,6	10,1	6,9	5,3	4,6			+1 $\frac{1}{2}$	33.31.6,68				42,56	72.36.29,07	T.
Mar. 12	Zenith Point R...	2.24,8	19,0	27,1	25,3	22,2	20,4	+5,8	9,781		178.42.28,17						T.
Mar. 17	Argelander 7375...	2.52,8	48,2	57,2	52,9	54,0	46,9	+5,1			358.27.52,50	30,185	50,9	47,7	0,24	37.32.31,45	T.
	(b) * R. 6 ^h . 48 ^m . 3 ^s ...	2.9,8	6,6	12,1	9,9	9,6	5,4				26.47.9,27				31,53	65.52.19,99	T.
	* R. 6 ^h . 53 ^m . 45 ^s ...	1.20,9	19,2	22,0	20,7	21,0	17,0				26.46.20,35				31,52	65.51.31,06	T.
	H. C. 13804.....	2.29,9	25,1	31,3	28,2	30,0	24,9				27.2.28,65				31,87	66.7.39,71	T.
	48 Geminorum ...	2.25,0	20,6	26,6	23,9	24,6	20,1				26.32.23,87				31,21	65.37.34,27	T.
	* R. 7 ^h . 19 ^m . 58 ^s ...	3.39,0	35,0	42,2	39,0	40,5	35,0				26.48.39,07		50,7	47,0	31,61	65.53.49,87	T.
	Bessel VII. 835 ...	0.32,1	28,7	31,0	31,9	30,9	28,0				65.5.30,52				134,51	104.12.24,22	T.
	Pollux R.....	3.1,4	56,2	2,3	2,6	58,9	57,1		9,829		154.53.3,84				26,14	61.36.59,11	T.
	Pollux.....	1.49,0	44,8	50,0	48,1	47,9	44,1		9,829		22.31.51,19					61.36.56,52	T.
	Argelander 8355..	0.43,4	38,0	44,3	42,5	41,6	38,1				357.45.41,43				0,98	36.50.19,64	T.
	5 Cancri.....	2.47,0	44,0	48,9	46,4	44,7	42,1				34.2.46,00				42,01	73.8.7,20	T.
	B.A.C. 2683.....	3.59,4	54,0	62,1	58,3	58,1	53,9				31.38.58,32				38,40	70.44.15,91	T.
	Rumker 2467....	2.37,0	32,6	40,0	36,2	37,0	33,9				32.7.36,57	30,180			39,09	71.12.54,85	T.
Mar. 20	Zenith Point R...	2.49,8	44,2	52,8	50,8	46,4	44,1	+5,0	10,943		178.42.28,81						T.
Mar. 21	(c) ω Geminorum....	4.27,9	23,0	26,8	25,5	25,0	22,9	+5,1			26.29.25,08	30,212	46,7	44,4	31,38	65.34.35,65	T.
	48 Geminorum ...	2.26,1	20,2	26,3	23,1	23,4	21,0				26.32.23,75				31,45	65.37.34,39	T.
	* R. 7 ^h . 19 ^m . 58 ^s ...	3.38,1	31,2	40,0	36,1	35,2	33,9				26.48.36,37				31,81	65.53.47,37	T.
	Bessel VII. 835...	0.31,0	27,4	30,0	30,0	28,8	26,5				65.5.29,03				135,34	104.12.23,56	T.
	Pollux R.....	3.7,0	1,2	9,7	6,6	4,6	3,0		9,994		154.53.6,00				26,30	61.36.57,11	T.
	Pollux.....	1.52,5	45,0	53,4	49,3	48,9	47,2		9,994		22.31.49,81					61.36.55,30	T.
	Argelander 8355..	0.43,9	37,2	44,5	42,0	40,6	38,0			+1	357.45.41,35				0,98	36.50.19,56	T.
	84 Geminorum ...	1.50,1	44,0	52,8	48,0	47,0	46,8				28.11.48,42				33,69	67.17.1,30	T.
	5 Cancri.....	2.47,4	40,9	48,1	44,7	44,2	41,9				34.2.45,00	30,208	42,8	41,3	42,49	73.8.6,68	T.
	(c) B.A.C. 2683.....	3.59,0	55,9	59,8	57,5	57,3	56,5				31.38.57,48				38,83	70.44.15,50	T.
	B.A.C. 2759.....	2.14,7	7,8	15,1	11,2	10,8	8,8				32.47.11,77				40,54	71.52.31,50	T.
	Rumker 2467....	2.37,2	30,0	38,4	34,6	34,9	32,6				32.7.35,07				39,55	71.12.53,81	T.
	\circ Ursæ Majoris R.	2.27,0	20,1	28,0	26,0	22,0	21,7		9,606		187.42.32,77				9,50	28.46.54,54	T.
	\circ Ursæ Majoris...	2.21,4	13,6	23,1	19,1	18,3	15,2		9,606		349.42.27,07					28.46.56,76	T.
	(c)(d) δ Hydræ R....	4.13,2	10,9	11,9	13,9	9,7	9,7		10,622	+1 $\frac{1}{2}$	132.43.58,40	30,200	40,9	39,4	62,19	83.46.40,60	T.
	δ Hydræ.....	1.10,7	6,4	10,4	8,4	6,9	7,9		10,622	+2 $\frac{1}{2}$	44.40.55,77					83.46.37,15	T.
	A ² Cancri.....	0.6,1	2,6	6,3	5,9	4,1	3,0				38.15.4,68				49,65	77.20.33,52	T.
	(e) H. C. 17647....	1.26,9	21,0	25,9	25,0	23,1	22,8				64.21.24,35				132,23	103.28.15,77	T.
	α Cancri.....	3.24,2	16,4	24,1	22,1	19,6	18,8			+1	38.28.21,48				50,04	77.33.50,71	T.
	Iris.....	1.59,8	54,7	60,8	58,1	57,7	57,6				44.36.58,45	30,190	39,4	38,1	62,18	83.42.39,82	T.
Mar. 24	Argelander 8355..	0.42,3	37,8	44,2	42,5	41,2	37,5	+8,3			357.45.41,12	29,950	37,9	31,4	1,00	36.50.19,67	B.
	γ Leonis.....	3.41,1	34,2	42,7	38,9	38,4	45,2				30.18.41,12	29,935	35,8	30,2	37,41	69.23.58,08	B.
	α Ursæ Majoris R.	3.52,5	47,5	54,8	51,4	47,0	46,9		11,504		189.3.19,72				27,26	27.26.5,61	B.
	(f) α Ursæ Majoris ..	2.14,0	8,9	16,9	13,7	9,6	9,7		11,504	+1	348.21.41,66				29,5	27.26.10,09	B.
	(g) θ Leonis R.....	0.40,0	34,9	38,9	39,3	34,0	36,4		10,537	-1	142.45.26,19				44,15	73.44.54,41	B.
	(c) θ Leonis.....	4.43,9	42,2	43,0	44,4	40,0	40,3		10,537	+1 $\frac{1}{2}$	34.39.31,12					73.44.54,82	B.
	(c) B.A.C. 3856.....	4.26,0	21,1	25,2	24,1	20,6	20,5				11.54.22,75				14,28	50.59.16,58	B.
	ι Leonis.....	2.62,2	57,0	63,9	61,4	57,4	57,3				39.33.0,70				52,61	78.38.32,86	B.
	(h) 83 Leonis. n.....	4.16,7	10,1	18,5	16,4	12,3	12,1				47.4.15,53				68,41	86.10.3,49	B.
Mar. 27	Zenith Point R...	2.21,6	17,1	23,4	23,2	18,3	18,2		9,640		178.42.28,45						B.
Mar. 28	Bessel VII. 835. ...	0.33,9	31,6	32,0	34,1	31,4	31,0				65.5.32,48	29,356	41,8	38,4	133,29	104.12.25,32	B.
	79 Geminorum ...	4.28,6	22,9	30,3	28,1	25,3	24,3				30.14.27,83				35,96	69.19.43,34	B.
	H. C. 15112.....	3.45,9	38,9	46,2	44,1	43,5	40,8			+2 $\frac{1}{2}$	27.23.44,77				32,07	66.28.56,39	B.
	ν Cancri.....	3.23,9	17,8	24,0	21,9	20,5	18,4				25.53.22,02				30,10	64.58.31,67	B.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) The mercury waving. (b) The R.A. may be a second or two in error. (c) Negative correction for Runs. (d) The bisection was uncertain, the surface of the mercury being ruffled by a slight breeze. (e) No star near this. (f) Blazing. (g) Unsteady. (h) The northern and brighter star.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	F	E						Int.	Ext.					
		"	"	"	"	"	"						"	"		"	"	"	
Mar. 31	(a) Σ 1332. <i>sp.</i> Bessel ix. 235..... Bessel ix. 269.....	2. 51,3 1. 22,5 4. 39,5	46,8 20,9 39,5	53,8 21,8 37,7	50,5 23,2 40,7	49,8 20,8 39,3	49,8 20,1 38,6				26. 37. 51,12 37. 21. 21,92 37. 9. 40,50	29,599	46,1	44,5	30,93 46,64 46,32	65. 43. 1,60 76. 26. 48,11 76. 15. 6,37			B. B. B.
Apr. 4	(b) Zenith Point R...	2. 35,0	33,9	34,8	42,1	33,3	33,9	+7,9	10,350		178. 42. 28,89								B.
Apr. 5	(c) Iris.....	4. 21,0	20,7	21,5	27,9	20,8	21,7		10,335	+3	43. 49. 16,68	29,500	47,3	44,3	58,37	82. 54. 54,16			B.
Apr. 7	ν^1 Cancr..... Bessel ix. 235 ... (d) Iris	3. 19,6 1. 19,5 4. 59,3	17,8 22,0 62,4	18,9 16,5 57,8	24,8 25,4 66,1	18,4 18,9 60,2	18,9 20,4 62,0				25. 53. 20,60 37. 21. 20,80 43. 45. 1,30	29,360 29,359	48,9 48,9	46,3 45,8	29,61 46,09 57,76	64. 58. 29,32 76. 26. 46,00 82. 50. 38,17			B. B. B.
Apr. 11	(e) Argelander 9164.. Iris	3. 24,4 2. 58,6	21,9 58,3	26,8 58,4	29,8 65,2	22,6 56,1	22,8 58,9	+7,4			358. 38. 25,55 43. 37. 59,98	29,717	41,5	36,7	0,07 59,34	37. 43. 3,99 82. 43. 37,83			B. B.
	Bessel ix. 1074 ... (f) Bessel ix. 1139 ...	0. 21,6 0. 39,1	22,2 39,8	19,3 37,0	27,3 44,4	18,0 38,1	21,7 39,5				36. 35. 21,77 36. 15. 39,82			36,7 45,76	46,30 75. 21. 4,09	75. 40. 46,58 75. 21. 4,09			B. B.
Apr. 16	Zenith Point R...	2. 18,1	16,3	19,4	23,6	16,2	17,2	+8,1	9,501		178. 42. 29,49								B.
Apr. 20	(g) H. C. 25637.....	4. 31,9	30,7	27,7	33,7	28,1	30,5	+6,8			27. 29. 30,32	29,752	37,2	32,8	33,02	66. 34. 42,40			B.
Apr. 21	* \mathcal{R} . 13 ^h . 59 ^m . 20 ^s .	3. 6,2	2,5	8,7	8,7	5,9	5,5				26. 48. 6,95	29,866	37,1	31,5	32,29	65. 53. 18,30			B.
Apr. 23	Zenith Point R. . .	2. 39,4	37,8	39,8	44,7	38,7	39,3		10,557		178. 42. 28,94								B.
Apr. 26	B.A.C. 3856..... Rumker 4364 H. C. 25637	4. 18,4 1. 17,9 4. 31,1	13,0 16,0 30,0	18,5 17,6 26,3	19,1 20,4 32,2	16,8 16,1 28,4	14,8 18,8 30,5				11. 54. 17,75 29. 21. 18,10 27. 29. 29,63	29,754 29,769	48,4 46,3	46,7 43,2	13,69 34,86 32,33	50. 59. 10,50 68. 26. 32,02 66. 34. 41,02			B. B. B.
	* \mathcal{R} . 13 ^h . 59 ^m . 20 ^s .	3. 6,1	3,4	6,8	7,9	4,3	4,9				26. 48. 6,27				31,41	65. 53. 16,74			B.
May 3	\circ Virginis.....	0. 16,5	16,6	12,3	19,5	14,4	11,3	+6,7			41. 20. 15,17	29,835	55,4	48,0	53,72	80. 25. 46,70			B.
May 4	\circ Virginis	0. 18,4	17,0	12,8	20,7	15,2	15,0				41. 20. 16,58	29,856	57,2	56,0	52,88	80. 25. 47,27			B.
	Rumker 4364 (d) H. C. 25637	1. 18,4 4. 32,5	14,9 29,3	14,6 25,3	20,1 30,9	14,6 28,0	14,1 29,1				29. 21. 16,40 27. 29. 29,07	29,849	54,8	47,3	34,66 32,14	68. 26. 28,87 66. 34. 39,02			B. B.
May 11	Zenith Point R...	2. 17,9	15,1	17,3	23,1	15,4	14,7	+9,0	9,413		178. 42. 30,19								B.
May 14	Zenith Point R...	2. 25,7	23,9	23,9	32,0	24,6	24,1	+9,8	9,831		178. 42. 30,02								B.
May 22	(d) Flora.....	4. 26,6	25,0	22,0	28,6	23,6	25,5	+3,7	12,069	+1	53. 3. 41,96	29,799	53,0	49,3	80,95	92. 9. 41,52			T.
May 23	(h) Flora.....	3. 17,4	13,0	14,6	21,0	14,4	14,0				53. 3. 16,13	30,161	55,6	53,8	81,15	92. 9. 15,89			T.
May 29	Zenith Point R...	2. 49,2	46,3	48,6	55,0	45,9	45,1	+4,7	10,929		178. 42. 29,39								T.
	(d)(i) Flora	4. 45,0	44,9	40,1	49,4	42,9	42,0	+3,7			53. 4. 44,02	30,157	57,1	53,5	81,26	92. 10. 43,89			T.
May 31	α^* Libræ.....	2. 46,7	42,0	42,1	48,0	41,1	40,0				66. 17. 43,65	29,928	60,1	58,4	138,12	105. 24. 40,38			T.
June 1	Rumker 4378..... 84 Virginis..... (k) α Draconis R....	0. 4,9 1. 8,7 1. 8,3	3,0 4,6 3,9	58,8 3,9 4,2	8,9 9,9 11,0	1,0 4,6 3,4	0,0 3,5 3,4				47. 45. 2,78 46. 36. 6,00 191. 35. 32,87	30,081	61,6	60,7	66,02 63,41 13,13	86. 50. 47,41 85. 41. 48,02 24. 53. 51,39			T. T. T.
	(k)(d) α Draconis.... (l) Arcturus R..... (m) Arcturus.....	4. 63,1 2. 60,5 0. 59,9	58,0 60,5 56,0	57,8 55,0 53,3	63,5 66,0 60,0	59,4 58,0 53,1	57,1 55,8 53,6				345. 49. 26,86 146. 28. 30,22 30. 56. 26,85				36,17	24. 53. 52,34 70. 1. 43,34 70. 1. 41,63			T. T. T.
	ϵ Bootis R..... ϵ Bootis.....	2. 62,5 2. 6,1	59,1 2,2	58,9 2,8	64,3 6,6	58,2 2,7	58,0 0,5				154. 12. 56,92 23. 12. 0,12				26,14	62. 17. 6,61 62. 17. 4,87			T. T.
June 2	δ Ophiuchi R.... δ Ophiuchi.....	3. 20,0 2. 13,6	16,0 11,7	16,6 9,2	23,8 17,2	15,6 12,3	13,3 8,1	+5,2	10,713 10,713		123. 13. 3,24 54. 11. 57,52	30,170	55,0	51,3	85,12	93. 18. 1,71 93. 18. 0,99			T. T.

ONE REVOLUTION of the MICROMETER = 20"862. ONE INTERVAL from the middle wire for an Equatorial Star = 16".6.
 ASSUMED Co-LATITUDE = 37°. 47'. 8",00.

(a) Faint on account of clouds. (b) From April 3 to June 14 the Circle was chiefly employed in taking the Circle Transits of Zodiacal Stars recorded in a subsequent part of the volume. (c) Bisected by T. (d) Negative correction for Runs. (e) After the observations of April 7, the Telescope accidentally struck against the observer's chair. (f) Cloudy. (g) No star near this. (h) Observed satisfactorily. (i) Of the last degree of faintness, disappearing immediately after the bisection. (k) Excessively faint from cloud. (l) Microscopes B, C, D and E were inadvertently read on the negative side of zero: the estimated correction of the Runs for the six readings = +1",0. (m) Faint from cloud.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		" "	" "	" "	" "	" "	" "					Inch.	°	°	"	°	" "
June 5	Zenith Point	2.22,0	20,0	18,6	26,3	19,3	16,2		9,577		178.42.29,65						T.
June 8	84 Virginis	1.6,1	3,6	1,4	10,9	1,4	2,5	+5,6			46.36.4,52	29,940	57,7	50,0	64,50	85.41.46,40	T.
	η Ursæ Majoris R. . . .	3.43,7	36,5	40,6	46,6	38,1	38,3		9,210		176.33.57,80				2,18	39.55.43,00	T.
	η Ursæ Majoris	0.48,4	43,7	45,3	51,8	45,2	42,4		9,210		0.51.2,76					39.55.42,32	T.
	(a) κ Virginis R.	0.56,7	53,3	51,6	59,9	49,6	49,4		6,003		116.57.16,97				108,22	99.34.9,87	T.
	κ Virginis	1.20,0	16,8	16,2	23,1	16,8	14,5		6,003		60.27.41,54					99.34.7,14	T.
	(b) Bessel xiv. 259 . . .	0.21,9	19,6	16,7	25,0	18,3	16,7				62.15.19,75				116,77	101.21.53,90	T.
	α Herculis R.	4.20,3	12,0	18,0	21,4	14,5	11,0		9,393		141.4.29,66	29,929	53,3	44,5	45,47	75.25.54,43	T.
	(c) α Herculis	0.20,0	17,7	16,1	23,3	15,1	17,0		9,393		36.20.30,91					75.25.53,76	T.
June 9	Bessel xvi. 1023 . . .	1.33,3	29,0	28,5	35,4	31,2	27,7				59.36.31,13	29,724	45,7	41,4	105,59	98.42.54,10	T.
	(d) Bessel xvi. 1108 . .	2.17,0	12,8	15,2	19,6	14,8	13,3				60.27.15,88				109,33	99.33.42,59	T.
	(e) Bessel xvi. 1114 . .	...	...	...	...	...	...		6,600	+1	60.28.26,78				109,42	99.34.53,58	T.
	(f) * R. 17 ^h . 3 ^m . 36 ^s .	0.11,3	9,6	6,9	15,5	9,4	6,8			+2	62.20.9,83				118,42	101.26.45,62	T.
	Bessel xvii. 48 . . . .	...	...	...	...	...	...		14,663	+1½	62.18.32,60				118,28	101.25.8,26	T.
	Bessel xvii. 133 . . .	0.30,0	29,8	27,4	34,1	28,8	26,3		14,663		63.48.52,22				126,45	102.55.36,05	T.
	B.A.C. 5885	2.26,7	22,0	23,3	31,8	23,4	20,3				65.52.25,03				139,19	104.59.21,60	T.
June 11	Zenith Point R. . . .	2.26,1	20,3	24,0	30,5	20,9	20,4	+4,0	9,683		178.42.30,62						T.
	η Ursæ Majoris R. . . .	3.61,0	55,6	59,3	67,0	57,6	55,1	+5,6	10,090		176.33.58,14	29,830	50,6	47,8	2,18	39.55.42,66	T.
	η Ursæ Majoris	0.64,3	60,0	61,9	67,7	60,0	58,7		10,090		0.51.0,40					39.55.39,96	T.
	(g) H. C. 25637	4.25,0	17,9	21,1	26,1	20,2	18,1			+1	27.29.22,29				32,08	66.34.31,75	T.
	Arcturus R.	3.52,8	47,9	52,3	57,0	48,3	47,3		10,894		146.28.33,00				36,82	70.1.42,44	T.
	Arcturus	1.45,1	40,1	41,6	47,8	42,0	42,2		10,894		30.56.24,80					70.1.39,00	T.
	Bessel xiv. 283	3.29,7	24,6	27,0	31,9	27,0	24,3				63.8.28,07				121,50	102.15.6,95	T.
June 13	B.A.C. 4772	2.21,0	19,2	17,5	27,7	20,8	18,8			+1½	61.52.21,27	30,130	51,5	48,0	116,06	100.58.54,71	T.
	B.A.C. 4787	3.58,9	55,7	58,0	64,3	58,4	55,6				63.33.59,16				125,01	102.40.41,55	T.
	β Lyræ R.	0.25,9	24,1	21,7	29,6	24,1	24,0		6,766		159.41.32,44	30,138	45,3	41,1	20,63	56.48.26,81	T.
	β Lyræ	2.21,3	15,0	19,9	22,3	16,2	15,4		6,766		17.43.26,25					56.48.24,26	T.
	γ Lyræ R.	3.48,0	42,8	49,1	52,6	46,5	43,4		8,750		158.59.13,86				21,45	57.30.46,21	T.
	γ Lyræ	0.20,1	14,7	17,4	20,4	16,2	14,9		8,750		18.25.43,41					57.30.42,24	T.
	(h) ρ ¹ Sagittarii	4.59,3	58,0	57,0	64,5	57,0	56,5				68.59.58,72				165,59	108.7.21,69	T.
	Piazzi XIX. 85	3.43,0	37,2	39,8	45,6	40,3	37,5				54.53.41,25				89,12	93.59.47,75	T.
July 10	(i) ε Herculis R.	4.23,1	14,4	18,4	25,1	17,8	16,6	+1,9	9,902		157.39.21,56	30,364	61,7	58,2	22,43	58.50.39,67	T.
	ε Herculis	0.36,1	31,3	30,4	40,0	31,1	29,9		9,902		19.45.35,21					58.50.34,84	T.
	Bessel xvii. 3	2.40,4	37,7	35,3	45,2	40,0	35,4				61.12.39,17				111,36	100.19.7,73	T.
	α Herculis	0.25,3	23,6	20,7	31,5	23,2	22,2				36.20.24,45				44,86	75.25.46,51	T.
	ρ Herculis R.	2.8,9	3,8	5,0	12,9	6,2	4,4		9,049		163.47.26,84				15,51	52.42.27,47	T.
	ρ Herculis	2.16,5	10,0	11,5	21,4	12,7	10,9		9,049		13.37.33,82					52.42.26,53	T.
July 11	(k) Bessel xvii. 48 . . .	3.41,0	36,0	36,0	46,0	37,6	35,6			+2	62.18.38,93	30,385	63,9	60,2	116,34	101.25.12,47	T.
	Bessel xvii. 133 . . .	3.55,2	51,3	50,9	60,4	51,7	49,7				63.48.53,45				124,35	102.55.35,00	T.
	B.A.C. 5885	2.30,0	25,3	24,5	34,2	26,0	25,0				65.52.27,51				136,88	104.59.21,59	T.
	B.A.C. 5918	3.30,6	23,0	27,1	32,0	26,6	23,3				352.8.27,32				6,68	31.12.57,84	T.
	B.A.C. 5948	1.18,0	14,0	10,4	21,9	13,7	10,3				66.21.14,80				140,12	105.28.12,12	T.
	(l) * R. 17 ^h . 34 ^m . 21 ^s .	2.25,1	17,1	20,9	27,2	19,0	17,7			+3	352.2.23,56				6,79	31.6.53,97	T.
	Σ 2217	3.60,5	57,7	60,1	67,4	59,9	55,5				36.4.0,43				44,27	75.9.21,90	T.
July 12	Zenith Point R. . . .	2.32,1	26,5	27,5	36,2	27,0	25,2	+1,2	9,922		178.42.30,80						T.
	ε Herculis R.	3.32,8	28,1	30,6	40,9	30,2	29,0	+1,9	7,457		157.39.25,20	30,300	61,7	56,2	22,45	58.50.36,05	T.
	ε Herculis	4.45,0	37,0	41,3	48,2	41,2	37,2		7,457		19.45.35,00					58.50.34,65	T.
	72 Ophiuchi R.	3.58,6	53,9	56,0	62,5	53,9	51,0		11,203		136.3.31,13	30,304	59,8	53,7	53,96	80.27.1,63	T.
	72 Ophiuchi	1.53,0	50,0	48,3	56,4	51,0	46,5		11,203		41.21.25,88					80.26.57,04	T.
	B.A.C. 6195	3.8,4	2,0	3,9	9,8	5,0	0,0				69.23.5,05				165,63	108.30.27,88	T.
	(m) H. C. 33627 . . . . .	...	...	...	...	...	...		7,372		69.23.59,88				165,76	108.31.22,84	T.
	H. C. 33894	4.14,5	8,4	11,1	16,1	13,1	6,7				69.29.11,92				166,56	108.36.35,68	T.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Uncertain, the mercury being disturbed by wind. (b) Extremely faint. (c) Bad definition. (d) 'The preceding of two.' (e) 'The following and brighter.' (f) 'Extremely faint: Mag. 10.' (g) Very faint: could not be seen earlier. (h) Negative correction for Runs. (i) The mercury unsteady. (k) Too faint for accuracy. (l) Doubtful observation, the star being very faint. (m) Numerous stars: this is of Mag. 8, and is preceded by a fainter.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refract.	Apparent N.P.D. from the Observation.		Observer.
		A	B	C	D	E	F						Int.	Ext.				
		"	"	"	"	"	"						Inch.	o	o	"	o	"
July 12	(a)(b) π Draconis R...	...	...	11,7	20,3	12,9	13,8		10,423	+1 $\frac{1}{2}$	191.55.5,08	30,294	57,4	52,3	13,80	24.34.19,92	T.	
	(a) π Draconis	0.10,1	3,0	4,4	12,5	5,4	4,0		10,423	+2 $\frac{1}{4}$	345.29.59,40					24.34.22,80	T.	
	(a) κ Aquilæ	0.3,4	59,3	56,7	3,8	59,4	58,1				58.15.0,12				99,63	97.21.16,95	T.	
July 16	(c) B.A.C. 5910.....	4.56,0	55,0	51,9	60,0	56,6	51,7				51.49.55,20	29,984	63,7	59,8	76,23	90.55.48,63	T.	
	B.A.C. 5918.....	3.29,7	21,1	25,9	30,0	26,0	21,0			+1	352.8.26,08				6,60	31.12.56,68	T.	
	B.A.C. 5948.....	1.23,0	20,2	16,9	26,2	20,1	16,7			+1 $\frac{1}{2}$	66.21.20,51				138,39	105.28.16,10	T.	
	* \mathcal{R} . 17 ^h . 34 ^m . 21 ^s .	2.22,5	15,1	18,4	24,1	18,7	13,9				352.2.18,93				6,70	31.6.49,43	T.	
	(d) Σ 2217. sf.	3.61,2	57,7	58,2	66,1	60,8	56,8			+1	36.4.0,42				43,72	75.9.21,34	T.	
	ξ Draconis R.	3.39,7	33,2	35,2	44,0	37,6	34,5		9,596		183.23.46,03	29,980		58,5	4,71	33.5.48,06	T.	
	ζ Draconis	1.10,9	6,9	7,9	14,4	9,3	6,2		9,596		354.1.17,76					33.5.20,25	T.	
	72 Ophiuchi R.	3.17,9	13,3	14,9	22,1	15,9	13,3		9,202		136.3.33,08				52,87	80.26.58,59	T.	
	72 Ophiuchi	1.14,0	12,0	8,4	16,6	13,7	10,0		9,202		41.21.29,18					80.26.59,25	T.	
	B.A.C. 6195.....	3.9,0	6,8	6,6	13,1	10,6	4,2				69.23.8,58				162,26	108.30.28,04	T.	
	(e) H. C. 33627.....	...	...	...	...	...	...		7,312	+2	69.24.4,46				162,40	108.31.24,06	T.	
July 21	(c) H. C. 31752.....	4.27,3	28,1	22,7	34,3	26,9	24,3	+4,4			68.44.27,18	29,972	57,5	53,2	158,37	107.51.42,45	T.	
	(c) H. C. 31954.....	4.11,4	11,1	6,4	18,0	8,4	8,4				68.59.10,50				160,47	108.6.27,87	T.	
	(c) H. C. 32065.....	4.56,0	56,7	52,0	62,7	55,0	53,5			+2	70.44.55,75				177,11	109.52.29,76	T.	
	(c) H. C. 32231.....	3.42,0	41,0	35,1	47,0	39,6	38,0				70.53.40,27				178,63	110.1.15,80	T.	
	H. C. 32471.....	0.15,1	12,9	11,0	20,1	11,7	9,9				74.10.13,48				220,05	113.18.30,43	T.	
	(c) H. C. 32632.....	4.12,0	11,0	6,5	17,1	9,4	8,9			+1	68.19.10,66				154,88	107.26.21,94	T.	
	H. C. 32847.....	1.30,1	29,0	27,0	34,9	28,1	25,5				73.21.29,32				208,23	112.29.34,45	T.	
	H. C. 32865.....	...	...	...	...	...	...		18,250		73.18.37,21				207,58	112.26.41,69	T.	
	H. C. 32886.....	...	...	...	...	...	...		3,902	+4	73.23.35,55				208,72	112.31.41,17	T.	
	H. C. 33203.....	2.62,0	58,0	60,0	64,8	60,7	55,1				72.8.0,53				192,50	111.15.49,93	T.	
	(f) H. C. 33350.....	4.10,5	5,0	7,9	15,9	9,9	4,7				71.19.9,60				183,17	110.26.49,67	T.	
	H. C. 33564.....	3.9,1	5,7	5,9	14,6	8,3	4,4				69.53.8,47				168,60	109.0.33,97	T.	
	H. C. 33709.....	3.38,5	34,0	34,6	42,8	37,4	32,9				71.8.37,23				181,27	110.16.15,40	T.	
	(c) H. C. 33885.....	4.50,1	50,9	45,4	57,3	49,0	45,9			+1 $\frac{1}{2}$	73.54.49,58				216,18	113.3.2,66	T.	
	(c)(g) H. C. 34117...	4.34,0	32,0	29,7	38,8	33,0	29,3				71.54.32,73				189,85	111.2.19,48	T.	
	H. C. 34339.....	3.27,1	23,7	23,9	32,0	25,9	20,4				67.58.26,00				152,11	107.5.35,01	T.	
	(h) B.A.C. 6504.....	1.36,4	34,9	33,7	41,0	36,1	31,1				72.36.35,77	29,975	54,5	51,4	199,11	111.44.31,78	T.	
	H. C. 35867.....	2.17,7	13,5	14,9	21,9	18,2	12,0				71.27.16,70				185,37	110.34.58,97	T.	
	(h) H. C. 36164.....	2.34,0	30,1	30,0	38,9	34,1	27,5			+2	72.52.32,58				202,53	112.0.32,01	T.	
	H. C. 36403.....	1.21,0	18,4	17,8	25,9	20,7	17,2				70.16.20,37				172,98	109.23.50,25	T.	
	50 Sagittarii.....	0.54,6	53,0	50,7	59,8	55,0	50,0				72.55.53,98				203,27	112.3.54,15	T.	
	H. C. 36777.....	3.44,4	41,0	41,8	49,0	44,9	38,9				70.43.43,88				177,58	109.51.18,36	T.	
	(h) H. C. 36999.....	2.41,5	39,0	38,0	46,9	41,3	37,0				69.57.41,02				169,96	109.5.7,88	T.	
	(i) H. C. 37202.....	2.25,0	22,1	22,4	30,0	24,1	19,5				68.7.24,20				153,87	107.14.34,97	T.	
July 23	(k) H. C. 32865.....	3.38,6	37,0	36,3	43,3	38,7	34,3				73.18.38,57	29,610	57,6	51,8	205,68	112.26.41,15	B.	
	H. C. 32974.....	4.14,0	10,2	11,3	17,4	13,2	8,5				78.39.13,05				313,23	117.49.3,18	B.	
	B.A.C. 6125.....	4.12,0	8,6	10,9	15,9	11,9	7,0				72.19.11,67				192,97	111.27.1,54	B.	
	H. C. 33288.....	1.42,7	41,6	39,7	47,4	42,3	39,6				74.26.42,47				222,27	113.35.1,64	B.	
	15 Sagittarii.....	3.9,2	6,9	7,1	13,5	7,0	4,6				71.38.8,52				184,99	110.45.50,41	B.	
	(l) * \mathcal{R} . 18 ^h . 10 ^m . 9 ^s .	1.12,1	12,2	9,7	16,2	10,9	8,5				69.26.11,78				162,94	108.33.31,62	B.	
	H. C. 33812.....	2.11,0	9,8	8,5	13,9	8,0	6,0				67.52.9,85				149,90	106.59.16,65	B.	
	H. C. 34157.....	4.18,9	14,4	17,2	20,7	16,1	12,5				72.29.17,27				195,02	111.37.9,19	B.	
	H. C. 34311.....	0.62,3	62,5	59,3	65,5	59,5	58,2				73.31.1,37				208,53	112.39.6,80	B.	
	H. C. 35188.....	3.21,9	17,7	20,3	23,9	21,3	16,0				68.58.20,67	29,610	55,4	49,8	159,53	108.5.37,10	B.	
	H. C. 35411.....	2.51,4	47,8	47,8	52,9	47,5	45,3				68.17.49,20				153,91	107.25.0,01	B.	
July 24	Zenith Point R...	2.41,9	37,9	39,0	46,8	37,4	35,7	+5,5	10,440		178.42.31,10							B.
July 27	(m) Neptune.....	2.39,4	38,3	34,9	45,6	38,6	36,9	+4,4		+4 $\frac{1}{2}$	61.32.38,74	29,986	58,2	52,3	112,90	100.39.8,54	B.	
	(m) Metis.....	4.60,8	60,7	56,1	66,8	59,2	59,1			+4	68.39.59,40				158,10	107.47.14,40	B.	
July 31	Zenith Point R...	2.6,7	3,3	2,3	13,1	2,4	1,6	+4,1	8,770		178.42.30,84							B.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Much obscured by clouds. (b) Microscope B having been inadvertently moved before reading off, the reading of Microscope A is rejected. (c) Negative correction for Runs. (d) 'A close double star.' (e) 'Preceded by two fainter objects.' (f) 'The following and southern of two.' (g) Not observed satisfactorily. (h) Cloudy. (i) 'The south-preceding of two of equal magnitude.' The other is H. C. 37204. (k) 'An equal star of greater N.P.D. and a smaller of less N.P.D. precede.' (l) 'One of the same mag. preceding.' (m) The Circle readings have been increased 5'. The transits of these objects were taken by the same observer.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.			Observer.							
		A	B	C	D	E	F						Int.	Ext.		"	"	"								
		"	"	"	"	"	"						"	"						"	"	"	"			
July 31	Σ 2217. sf.	3. 59,3	55,9	56,4	63,9	56,6	53,3	+4,4		+2½	36. 3. 58,40	29,866	60,6	55,8	43,90	75. 9. 19,46		B.								
	B.A.C. 6081.	1. 33,3	31,3	26,8	38,4	31,0	29,3				71. 11. 31,90				180,18											
	γ' Sagittarii.	3. 50,0	47,2	46,7	56,6	47,9	44,8				80. 23. 49,43				374,61											
	B.A.C. 6127.	2. 47,8	45,1	42,4	52,3	44,3	41,6				79. 17. 45,98				333,53											
	(a) B.A.C. 6161.	4. 62,3	62,0	57,3	67,7	59,6	58,5				74. 35. 1,23				224,53											
	H. C. 33591.	0. 18,0	17,1	12,0	22,5	14,3	13,4				73. 15. 16,27				204,98											
	B.A.C. 6220.	4. 14,0	10,2	10,3	18,8	11,3	7,3				79. 19. 12,60				334,34											
	(b) H. C. 33885.	4. 54,9	51,3	51,4	60,3	52,8	48,9				73. 54. 53,98				214,28											
	(c) B.A.C. 6273.	1. 46,5	45,0	41,0	52,2	43,4	41,8				76. 11. 45,25				253,34											
	H. C. 38022.	0. 47,3	46,8	41,9	53,5	44,8	44,6				+2				74. 35. 46,33				29,900	59,0	54,7	225,50	113. 44. 8,99		B.	
	B.A.C. 6888.	4. 13,3	8,8	9,5	13,0	9,4	5,8								78. 4. 10,58							297,80				
	B.A.C. 6907.	0. 24,2	22,5	17,6	29,6	19,8	18,8								66. 20. 22,13							139,31				
	H. C. 38618.	0. 55,1	53,5	50,1	60,7	51,8	50,3				76. 5. 53,72				252,27				+4	29,906	56,2	52,0	112,84	100. 41. 18,27		B.
	(d) Neptune.	4. 50,4	49,0	44,4	54,6	46,9	47,3				61. 34. 48,27				161,32											
	(d)(e) Metis.	4. 48,8	47,0	43,0	53,1	44,5	45,0				69. 4. 45,77				108. 12. 4,25								B.			
Aug. 3	(c)(f)* R. 18 ^h . 7 ^m . 6 ^s .	0. 63,0	62,4	57,3	68,8	59,7	58,3	+4,1		+2	69. 21. 1,73	29,982	58,3	49,4	165,01	108. 28. 23,46		B.								
	(c) H. C. 33812.	2. 14,4	13,0	10,3	19,9	11,5	10,0				67. 52. 13,48				152,53											
	H. C. 33974.	1. 44,0	43,0	38,5	50,3	42,2	41,0				68. 36. 43,21				158,58				+2	29,968	55,4	47,8	107. 43. 58,51		B.	
	(c) H. C. 34302.	1. 17,7	15,2	12,2	23,5	14,2	14,1				68. 31. 16,32				157,82											
	(g) H. C. 34433.	4. 63,0	61,8	57,8	68,5	59,0	59,9				70. 25. 1,67				175,18											
	H. C. 34621.	1. 35,2	33,8	30,0	40,4	32,8	31,5				68. 1. 34,17				153,77				+1	29,962	54,5	46,6	107. 8. 44,66		B.	
	(d) H. C. 34718.	4. 47,4	46,9	41,4	52,8	43,9	42,7				71. 39. 45,82				188,54											
	H. C. 34916.	0. 41,9	40,0	35,9	47,0	38,9	36,9				70. 10. 40,13				172,80											
	H. C. 35207.	3. 30,0	26,9	26,3	34,7	28,2	25,8				68. 38. 29,13				158,89				49,2	29,950	53,5	45,0	107. 45. 44,74		B.	
	H. C. 35374.	0. 32,3	30,6	24,9	35,9	27,5	26,6				69. 30. 29,70				166,52											
	(d)(h) H. C. 35497.	4. 44,2	44,3	39,7	50,0	42,4	44,9				70. 19. 44,22				174,36											
	B.A.C. 6524.	4. 61,0	61,1	57,2	65,8	58,2	57,2				73. 35. 0,08				213,22				+1	29,916	55,7	50,0	112. 43. 10,02		B.	
	π Sagittarii.	2. 26,7	23,0	21,6	29,8	22,6	19,8				72. 7. 24,25				194,03											
	(i) H. C. 35970.	1. 6,7	5,7	3,8	12,5	4,6	2,0				70. 36. 6,03				177,12											
	(k) H. C. 36152.	2. 15,6	13,8	11,3	19,5	12,2	10,2				72. 37. 14,07				200,20				+1	29,916	55,7	50,0	111. 45. 10,99		B.	
	(d) ρ' Sagittarii.	4. 60,0	60,3	55,2	65,7	57,9	56,0				68. 59. 59,18				161,97											
	χ' Sagittarii.	3. 47,8	44,4	43,9	52,8	45,0	41,6				75. 38. 46,43				247,70											
	(l) B.A.C. 6666.	2. 29,5	27,0	24,6	33,4	25,9	23,3				78. 7. 27,62				304,34				+1	29,916	55,7	50,0	117. 17. 8,68		B.	
	H. C. 36999.	2. 42,2	39,8	37,8	46,2	39,8	37,5				69. 57. 40,92				171,19											
	(m) H. C. 37202.	2. 29,2	25,8	24,1	32,7	25,6	23,6				68. 7. 27,17				154,99											
	H. C. 37420.	3. 65,0	61,3	62,5	69,7	62,6	59,1				74. 4. 3,92				220,92				+1	29,916	55,7	50,0	113. 12. 21,56		B.	
	H. C. 38503.	4. 18,8	15,0	15,6	21,4	15,5	13,7				69. 39. 17,25				168,67											
	H. C. 38618.	0. 53,2	51,8	48,8	58,7	49,2	48,7				76. 5. 51,85				257,09											
	Neptune.	1. 30,3	26,5	24,1	33,5	25,4	26,2				61. 36. 27,87				114,77				+1	29,916	55,7	50,0	100. 42. 59,36		B.	
	(n) Metis.	3. 58,7	53,9	55,9	62,5	53,4	52,1				69. 23. 56,62				166,79								108. 31. 20,13			B.
Aug. 4	H. C. 32855.	4. 16,0	11,3	12,6	20,9	11,3	10,4			+1	74. 9. 14,26	29,920	57,5	50,3	220,74	113. 17. 31,72		B.								
	H. C. 33005.	3. 33,1	30,4	28,7	37,9	29,3	29,0				68. 23. 31,88				156,13											
	H. C. 33111.	2. 44,6	42,6	41,1	50,8	41,5	40,0				70. 37. 43,81				176,63											
	B.A.C. 6141.	1. 41,0	39,4	36,1	46,4	37,0	36,3				74. 51. 39,60				232,09											
	(d) H. C. 33367.	4. 59,3	58,9	53,9	65,4	56,0	55,7				70. 19. 58,20				173,64											
	15 Sagittarii.	3. 7,3	4,8	4,4	13,2	4,5	2,6				71. 38. 6,55				187,50											
	H. C. 33604.	2. 33,6	31,6	28,6	37,9	29,3	28,5				69. 37. 31,88				166,88				+1	29,916	55,7	50,0	108. 44. 55,48		B.	
	(o) H. C. 33767.	3. 25,0	22,6	22,1	30,4	21,0	19,4				73. 13. 23,88				207,27											
	H. C. 33894.	4. 13,6	10,2	10,9	18,1	10,3	7,6				69. 29. 12,35				165,61											
	B.A.C. 6267.	0. 42,2	41,8	37,2	47,7	38,2	38,8				68. 45. 41,08				159,22				+1	29,916	55,7	50,0	107. 52. 57,02		B.	
	(p) B.A.C. 6299.	0. 51,6	50,3	45,2	55,9	47,8	46,8				70. 5. 49,72				171,34											
	H. C. 34336.	4. 12,4	8,5	9,2	16,4	8,6	6,0				71. 49. 10,75				189,61											
	B.A.C. 6347.	2. 16,9	14,0	12,6	21,2	12,2	10,9				72. 2. 14,93				192,18				+1	29,916	55,7	50,0	110. 56. 57,08		B.	
	H. C. 34619.	4. 7,3	3,9	4,7	11,4	4,4	1,2				71. 19. 6,05				183,94											
	(q) H. C. 34735.	4. 40,7	37,0	38,9	46,2	38,6	34,5				78. 19. 39,95				308,11											
30 Sagittarii.	1. 30,2	28,8	25,3	34,9	25,2	25,7	73. 11. 28,55	206,94	+1	29,916	55,7	50,0	117. 29. 24,78		B.											
H. C. 35207.	3. 34,0	31,3	31,6	39,3	30,8	29,6	68. 38. 33,25	158,29					107. 45. 48,26			B.										

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refract.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
Aug. 4	(a) B.A.C. 6474.....	4.44,4	41,0	41,6	48,8	42,0	37,5				79. 4.43,18	29,916	55,7	50,0	330,97	118.14.50,87	B.
	B.A.C. 6502.....	3.17,4	15,0	14,9	22,3	13,4	11,3				73.58.16,17				218,08	113. 6.30,97	B.
	B.A.C. 6533.....	4.16,6	13,3	13,7	21,6	12,7	11,1				75.44.12,08				247,85	114.52.56,65	B.
	H. C. 35867.....	2.21,9	19,0	17,4	26,0	17,4	16,6				71.27.20,03				185,55	110.35. 2,30	B.
	B.A.C. 6576.....	1.63,9	61,8	59,5	68,4	60,0	58,3				75.17. 2,25				239,52	114.25.38,49	B.
	B.A.C. 6587.....	2.60,0	63,2	57,8	67,8	60,2	59,1				70. 3. 1,77				170,97	109.10.29,46	B.
	ρ^s Sagittarii.....	2.22,6	18,8	18,5	26,5	18,4	17,0				69.27.20,62				165,40	108.34.42,74	B.
	χ^s Sagittarii.....	1.23,3	21,9	17,8	28,0	18,7	18,5				75. 6.21,55	29,906	55,0	48,6	237,01	114.14.55,28	B.
	H. C. 36777.....	3.49,1	46,8	46,5	54,0	46,4	43,8				70.43.48,28				178,22	109.51.23,22	B.
	H. C. 36947.....	2.60,8	59,1	58,4	66,0	58,1	56,5				70. 3. 0,23				171,40	109.10.28,35	B.
	(b) Neptune.....	1.59,8	57,5	55,9	64,4	56,8	57,4				61.36.58,90	29,900	52,6	44,8	114,67	100.43.30,29	B.
Aug. 6	Zenith Point R....	2.20,1	16,0	16,4	25,6	15,1	15,0	+4,7	9,382		178.42.31,28						B.
	(c) B.A.C. 5989.....	2.48,4	48,3	45,7	55,7	46,7	45,3	+4,1		+1	74.27.48,66	30,041	59,9	60,8	221,64	113.36. 7,02	B.
	B.A.C. 6027.....	3.49,8	48,8	46,4	55,4	47,7	45,5				73.43.49,45				210,68	112.51.56,85	B.
	H. C. 32648.....	3.12,3	10,6	9,2	17,2	10,2	7,6			+1	70.43.11,57				174,49	109.50.42,78	B.
	H. C. 32847.....	1.37,5	38,0	33,5	44,2	36,5	34,3				73.21.37,55				205,51	112.29.39,78	B.
	(d) H. C. 33017.....	3.28,7	27,0	25,2	34,9	25,6	24,1				73.28.28,05				207,07	112.36.31,84	B.
	(e) H. C. 33203.....	2.64,3	63,5	61,7	70,4	63,6	59,3				72. 8. 4,22				189,96	111.15.50,90	B.
	(f) H. C. 33385.....	3. 5,4	5,0	2,7	12,4	4,2	1,1				69.18. 5,55				161,10	108.25.23,37	B.
	B.A.C. 6195.....	3. 9,7	9,8	7,3	16,1	9,2	6,0				69.23.10,12				161,84	108.30.28,68	B.
	(g) H. C. 33729.....	0.18,7	18,9	13,8	24,1	16,8	14,5				70.35.17,83				173,16	109.42.47,71	B.
	(h)(i) H. C. 34157. ...	4.16,4	17,5	10,9	21,4	14,5	13,0				72.29.15,52				194,23	111.37. 6,47	B.
	H. C. 34354.....	2.19,5	18,9	14,8	23,0	16,5	14,5				69.32.18,18				163,20	108.39.38,10	B.
	(h) H. C. 34532.....	4.23,4	24,3	17,4	26,8	20,1	20,0				73.39.21,92				209,62	112.47.28,26	B.
	(h) H. C. 34690.....	4. 6,7	8,0	1,6	11,8	4,1	3,5				71.59. 5,83	30,046	59,7	57,8	189,40	111. 6.51,95	B.
	B.A.C. 6400.....	2.29,2	28,3	25,7	35,3	25,1	24,0				73.52.28,27				214,09	113. 0.39,08	B.
	(k) H. C. 35126.....	3.58,0	56,0	54,9	63,5	56,4	52,4				70.58.57,40				178,30	110. 6.32,42	B.
	(l) B.A.C. 6474.....	4.44,7	42,2	42,7	49,5	43,8	38,1				79. 4.44,15				326,97	118.14.47,84	B.
	B.A.C. 6504.....	1.41,9	42,5	38,4	47,0	41,6	38,6				72.36.41,90				196,99	111.44.35,61	B.
	π Sagittarii.....	2.30,0	28,3	26,1	35,0	28,1	23,8				72. 7.28,88				191,04	111.15.16,64	B.
	(m) H. C. 36016.....	0.25,3	25,9	20,5	28,8	22,7	21,0				73.10.24,08			56,3	204,89	112.18.25,69	B.
	H. C. 36585.....	2.23,2	21,3	20,0	27,9	20,5	17,4				71.42.22,05				186,76	110.50. 5,53	B.
	(l) B.A.C. 6666.....	2.31,2	29,7	27,2	35,9	30,5	25,8				78. 7.30,38				299,73	117.17. 6,83	B.
Aug. 8	(n) H. C. 34428.....	3.43,5	41,7	40,1	48,8	42,8	38,5				70.23.43,07	29,809	64,3	61,8	169,60	109.31. 9,39	B.
	(o) Neptune.....	4.22,2	18,0	17,8	24,5	19,4	15,6				61.39.20,18	29,784	61,7	58,2	111,32	100.45.48,22	B.
	(o) Metis.....	1.43,7	40,4	37,8	45,5	40,4	39,5				69.56.41,45				166,39	109. 4. 4,56	B.
Aug. 9	(h)(o) Neptune.....	4.54,0	57,7	49,7	60,8	54,8	52,1				61.39.54,83	29,648	63,2	58,5	110,79	100.46.22,34	B.
	(o) Metis.....	3.27,7	26,0	23,0	32,2	27,3	22,8				70. 3.26,97				166,58	109.10.50,27	B.
Aug.10	(o) B.A.C. 6304.....	4.17,0	14,6	13,7	22,9	16,3	11,8				75. 4.16,63	29,843	65,6	62,0	229,46	114.12.42,81	B.
	B.A.C. 6347.....	2.20,7	19,1	16,2	25,5	19,4	14,8				72. 2.19,60				187,15	111.10. 3,47	B.
	(p) H. C. 34619.....	4. 8,1	6,7	5,8	13,5	8,8	3,0				71.19. 8,22				179,14	110.26.44,08	B.
Aug.13	H. C. 32861.....	4.50,6	45,9	47,3	53,3	47,1	43,8	+4,1			70.54.48,65	29,525	62,4	57,3	174,69	110. 2.19,60	B.
	H. C. 33058.....	1.48,8	46,2	44,6	53,7	44,8	43,9				73.21.47,25				203,47	112.29.46,98	B.
	(h) H. C. 33171.....	4.50,2	48,8	44,8	54,9	45,7	46,3				72. 4.48,42				187,42	111.12.32,10	B.
	(q) H. C. 33316.....	2.59,2	56,2	55,5	63,6	54,5	53,0				69.22.57,42				160,17	108.30.13,85	B.
	(r) H. C. 33470.....	2.52,9	49,6	49,1	57,5	48,6	46,8				69.17.51,15				159,43	108.25. 6,84	B.
	(s)* R. 18 ^h . 7 ^m . 45 ^s ..	3.33,9	29,3	29,8	36,5	29,3	27,5			+1	69.43.31,48				163,23	108.50.50,97	B.
	H. C. 33729.....	0.25,9	23,0	20,3	29,7	20,6	20,5				70.35.23,38				171,42	109.42.51,06	B.
	(t) H. C. 33830.....	1.48,5	45,5	43,9	52,9	43,8	47,1			+1	77.21.47,13				274,81	116.30.58,20	B.
	B.A.C. 6266.....	1.52,7	50,3	48,7	56,9	49,0	46,9				73.56.51,00				211,66	113. 4.58,92	B.
	(u) B.A.C. 6299.....	0.57,6	54,9	53,2	61,0	52,7	52,2				70. 5.55,40				166,68	109.13.18,34	B.
	(x) B.A.C. 6323.....	0.16,9	14,4	11,3	21,1	12,7	12,4				70.15.14,83	29,518	60,5	56,8	168,28	109.22.39,37	B.
	H. C. 34589.....	0.15,0	12,3	8,3	18,4	9,0	9,9				68. 5.12,18				149,57	107.12.18,01	B.
	ϕ Sagittarii.....	3.48,1	43,4	45,2	52,2	44,3	41,3				77.58.46,27				290,31	117. 8.12,84	B.

ONE REVOLUTION of the MICROMETER = 20".862. ONE INTERVAL from the middle wire for an Equatorial Star = 16".6.
 ASSUMED CO-LATITUDE = 37°.47'.8".00.

(a) Very faint. (b) Densely foggy: the Planet almost invisible. (c) Faint. (d) This is Argelander Z. 224, No. 30. (e) The night was very misty. (f) 'Another precedes.' (g) Obscured by mist. (h) Negative correction for Runs. (i) Extremely faint. (k) Doubtful observation, the star being very faint. (l) Very uncertain. (m) 'The middle and brightest of three.' (n) Doubtful observation: cloudy all this night. (o) Cloudy. (p) Very uncertain, on account of clouds. (q) 'A fainter precedes and a brighter of greater N.P.D. follows.' (r) This is Argelander Z. 218, No. 46. (s) Argelander Z. 218, No. 55. (t) Argelander Z. 308, No. 42. (u) 'The brightest of many.' (x) Argelander Z. 227, No. 55.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						Inch.	"			
Aug. 13	(a) H. C. 36448.....	3.10,4	5,5	7,1	12,8	5,4	4,4				70. 8. 8,03	29,510	59,7	56,5	167,23	109. 15. 31,52	B.
	(b) H. C. 36666.....	1.20,8	17,3	15,0	22,8	15,2	14,8			+2	69. 31. 17,63				161,58	108. 38. 35,47	B.
	(b) Neptune.....	2.20,5	16,0	16,0	23,2	14,3	14,3				61. 42. 17,70	29,528	62,9	56,5	110,98	100. 48. 44,94	B.
	(c)(d) Metis.....	4.53,2	50,5	48,4	56,8	46,4	48,3			+4	70. 29. 49,40				170,81	109. 37. 16,47	B.
Aug. 15	(e) Neptune.....	3.26,7	23,6	22,0	30,5	23,5	25,4				61. 43. 25,75	29,819	60,8	54,8	112,55	100. 49. 54,56	B.
	Zenith Point.....	2.51,6	47,0	48,8	57,0	46,3	47,7	+4,1	10,881		178. 42. 31,74						B.
Aug. 16	H. C. 34589.....	0.15,2	12,8	9,6	18,0	9,4	7,8				68. 5. 12,17	29,706	59,3	55,3	150,99	107. 12. 19,42	B.
	B.A.C. 6376.....	2.48,9	44,2	45,6	52,5	44,8	42,8				70. 37. 46,85				173,58	109. 45. 16,69	B.
	(f) H. C. 34884.....	3.14,4	9,3	10,3	17,6	8,8	8,3			+1	69. 38. 11,85				164,10	108. 45. 32,21	B.
	H. C. 35031.....	0. 5,4	2,5	0,8	9,1	1,4	0,6				71. 25. 3,30				181,84	110. 32. 41,40	B.
	B.A.C. 6448.....	3. 9,8	5,3	8,0	14,9	5,0	5,3				74. 13. 8,48				217,89	113. 21. 22,63	B.
	H. C. 35355.....	3.33,1	30,3	31,4	39,2	31,5	29,6				72. 53. 33,33				199,33	112. 1. 28,92	B.
	H. C. 35499.....	1.20,9	16,0	15,6	23,9	15,2	15,0				70. 11. 17,95				169,25	109. 18. 43,46	B.
	B.A.C. 6524.....	0. 9,4	7,5	4,7	13,7	3,0	4,7				73. 35. 7,18				208,64	112. 43. 12,08	B.
	H. C. 35843.....	1.47,8	44,1	43,0	51,6	43,5	42,4			+1	75. 16. 45,58				235,16	114. 25. 17,00	B.
	B.A.C. 6576.....	2. 8,3	4,4	4,0	12,5	4,4	3,3				75. 17. 6,43				235,27	114. 25. 37,96	B.
	(g) H. C. 36214.....	0.63,7	61,3	60,4	68,8	59,3	59,6				77. 11. 2,32	29,718	58,5	54,6	273,96	116. 20. 12,54	B.
	H. C. 36516.....	3.16,7	12,2	13,2	20,3	10,5	10,3				73. 43. 14,32				210,95	112. 51. 21,53	B.
	H. C. 36678.....	0.61,7	59,2	57,3	65,9	57,4	56,3				71. 40. 59,77				185,13	110. 48. 41,16	B.
	(e) H. C. 36857.....	4.10,3	9,7	6,3	15,3	6,6	6,8				70. 34. 9,05				173,29	109. 41. 38,60	B.
	h ¹ Sagittarii.....	3.44,0	39,0	40,6	48,8	39,9	38,6				75. 53. 42,33				246,85	115. 2. 25,44	B.
	(h) H. C. 37202.....	2.32,4	28,8	27,8	35,9	28,2	26,6				68. 7. 30,30				151,57	107. 14. 38,13	B.
	(i) H. C. 37383.....	0. 9,0	7,1	5,4	14,3	5,7	5,2				75. 55. 7,80				247,30	115. 3. 51,36	B.
	H. C. 37549.....	0.14,2	12,0	9,0	18,4	8,1	8,6			+1	76. 50. 11,68				266,12	115. 59. 14,06	B.
	(c) Neptune.....	3.63,7	61,3	58,3	66,3	57,4	60,2				61. 44. 1,07	29,749	54,7	50,0	113,45	100. 50. 30,78	B.
	(c) Metis.....	4.21,4	18,2	15,2	24,0	13,8	16,8				70. 49. 18,15				177,72	109. 56. 52,13	B.
Aug. 17	(c) Neptune.....	4.32,7	32,4	26,5	35,9	28,4	29,0		9,691		61. 44. 37,20	29,891	56,3	49,4	114,17	100. 51. 7,63	B.
	(k) Metis.....	0.30,6	28,2	24,1	33,9	25,2	25,2		9,691		70. 55. 34,38				179,89	110. 3. 10,53	B.
Aug. 18	Neptune.....	0.14,0	12,0	9,1	18,3	9,2	10,4				61. 45. 12,20	30,000	54,5	48,8	114,78	100. 51. 43,24	B.
Aug. 22	Zenith Point.....	3.28,5	25,6	28,2	26,6	25,5	26,2	+3,2	13,136		178. 42. 21,72						C.
Aug. 23	(l) Zenith Point.....	3.27,4	25,0	27,3	26,4	24,9	24,7		13,107		178. 42. 21,51						C.
Aug. 24	Zenith Point.....	2.27,6	24,5	26,3	26,9	23,4	24,6	+2,3	10,171		178. 42. 22,16						T.
Aug. 27	(b) Neptune.....	0.36,0	35,5	33,4	32,2	33,0	34,0			+2½	61. 50. 33,92	29,924	58,8	54,1	113,70	100. 57. 13,46	T.
Sept. 4	Zenith Point.....	2.36,1	33,3	36,3	32,9	32,1	32,9	+4,1	10,598		178. 42. 21,81						C.
	Zenith Point.....	1.62,3	61,1	62,5	61,4	59,2	59,3		9,035		178. 42. 21,86						B.
Sept. 5	(m) Neptune.....	0.52,0	53,4	51,0	51,3	51,1	51,5	+3,8		+3	61. 55. 51,55	30,143	61,9	54,4	114,89	101. 2. 32,85	T.
Sept. 8	(n) Neptune.....	2.36,8	36,0	37,9	35,0	35,5	35,0			+3	61. 57. 36,09	30,059	55,3	46,5	116,60	101. 4. 19,10	T.
Sept. 11	(n) Metis.....	2.33,7	32,6	34,9	30,1	30,6	31,1		9,921	+3	72. 52. 33,49	29,069	50,5	48,3	197,74	112. 0. 37,64	T.
	(c) Neptune.....	4.24,8	26,0	24,0	20,9	21,7	24,2		10,000	+2¾	61. 59. 23,30				112,49	101. 6. 2,20	T.
Sept. 12	(c) Neptune.....	4.58,2	58,8	59,0	55,7	56,3	58,4			+2½	61. 59. 57,54	29,060	49,1	47,1	112,78	101. 6. 36,73	T.
Sept. 17	χ ² Sagittarii.....	1. 9,7	11,4	8,5	9,3	7,8	10,7	+3,1			75. 6. 9,68	30,328	55,4	48,8	240,24	114. 14. 56,73	B.
	H. C. 36999.....	2.30,9	31,2	29,9	28,9	29,4	31,0				69. 57. 30,48				172,88	109. 5. 10,17	B.
	H. C. 37221.....	0.37,0	39,6	36,0	35,8	36,1	37,6				73. 15. 37,08				211,30	112. 23. 55,19	B.
	H. C. 37433.....	0.21,9	24,2	20,4	20,4	19,3	22,5				73. 45. 21,48				218,43	112. 53. 46,72	B.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) 'One of greater N.P.D. preceded 20'. (b) Cloudy. (c) Negative correction for Runs. (d) Could not be seen sooner on account of cloud.
 Another object of greater N.P.D. followed 20'. (e) Very faint. (f) The brightest of several. (g) Faint. (h) 'The south-preceding of two stars of Mag. 8.' (i) This is Argelander Z. 239. No. 62. (k) Another object followed about 10", for which the Micrometer reading was 13",844. (l) The observations marked with the Italic C were taken by H. C. Carrington, Esq. (m) 'Very good.' (n) Satisfactory observation.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5".	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						"	"		"	"	"	
Sept. 17	H. C. 37769.....	1. 7,7	9,4	7,1	7,3	7,4	7,8				76. 41. 7,90	30,328	55,4	48,8	271,57	115. 50. 26,28		B.	
	(a) H. C. 37959.....	4. 9,5	9,0	11,3	7,8	8,9	9,0				69. 39. 9,68				169,95	108. 46. 46,44		B.	
	H. C. 38250.....	2. 54,3	54,9	55,3	52,8	53,4	53,4				73. 27. 54,32				214,20	112. 36. 15,33		B.	
	B.A.C. 6914.....	3. 22,2	20,9	22,4	19,7	20,3	20,3				71. 53. 21,32				193,65	111. 1. 21,78		B.	
	(b) * R. 20 ^h . 3 ^m . 42 ^s	4. 13,9	12,9	16,2	12,4	11,6	13,5				74. 44. 13,85				233,94	113. 52. 54,60		B.	
	H. C. 38863.....	0. 44,3	45,6	43,8	43,4	43,6	45,3				75. 40. 44,42				250,83	114. 49. 42,06		B.	
	β Capricorni ...	2. 47,4	47,4	48,9	46,4	45,9	45,6				66. 7. 47,38				141,60	105. 14. 55,79		B.	
	(c) Metis.....	3. 8,1	8,5	10,4	7,4	6,8	7,9				73. 3. 8,50	30,310	52,6	46,7	209,23	112. 11. 24,54		B.	
Neptune.....	2. 38,0	37,1	37,5	35,4	35,6	37,3			+½	62. 2. 37,07				117,94	101. 9. 21,82		C.		
Sept. 19	(d)(e) Metis.....	4. 55,0	58,6	55,7	53,8	53,0	56,6				73. 4. 55,45	30,440	54,7	54,7	207,07	112. 13. 9,33		B.	
	Neptune.....	3. 41,0	41,7	42,4	39,2	40,2	40,6			+¼	62. 3. 41,23				116,61	101. 10. 24,65		C.	
Sept. 21	(e)(f) Metis.....	1. 4,8	8,7	6,0	5,0	5,0	6,6				73. 6. 6,13	30,086		55,0	204,81	112. 14. 17,75		B.	
Sept. 22	ε Aquilæ R.....	2. 35,9	35,1	35,4	33,4	34,7	35,5		9,860		141. 22. 38,19	30,094	56,8	53,7	44,38	75. 7. 35,38		T.	
	ε Aquilæ.....	1. 60,3	63,0	62,5	59,1	62,1	62,1		9,860		36. 2. 4,64				44,38	75. 7. 35,83		T.	
	ζ Aquilæ R.....	3. 15,2	14,0	16,7	14,1	13,6	14,9		7,185		140. 9. 13,81				46,38	76. 21. 1,76		T.	
	ζ Aquilæ.....	4. 29,9	31,0	32,4	28,2	31,6	30,0		7,185	+1½	37. 15. 29,79				46,38	76. 21. 2,98		T.	
Sept. 24	Zenith Point.....	2. 50,1	50,3	53,6	50,2	49,8	49,8	+2,4	11,422		178. 42. 21,19							T.	
	(g) β Aquilæ R.....	3. 19,7	18,0	20,3	17,2	17,8	21,0	+3,1	11,328		132. 32. 51,34	29,839	57,0	54,0	60,01	83. 57. 37,86		T.	
	β Aquilæ.....	2. 18,5	21,0	18,1	15,7	18,6	18,5		11,328		44. 51. 50,92				60,01	83. 57. 37,74		T.	
	ρ Draconis R.....	1. 41,0	41,2	42,1	38,9	40,9	41,6		10,980		193. 56. 20,67				15,71	22. 32. 52,81		T.	
	ρ Draconis.....	3. 43,2	40,9	47,0	39,9	44,3	41,0		10,980		343. 28. 22,65				15,71	22. 32. 53,75		T.	
Sept. 25	(h) H. C. 37662.....	1. 57,8	59,4	59,3	55,9	57,3	59,3		13,952	+1	74. 0. 35,85	29,850	57,6	56,2	215,43	113. 8. 58,09		T.	
	H. C. 38096.....	2. 55,0	55,8	56,3	52,0	54,9	53,3				71. 7. 54,85				179,33	110. 15. 40,99		T.	
	H. C. 38250.....	2. 59,9	61,1	62,3	58,6	58,7	59,8				73. 28. 0,38				207,64	112. 36. 14,83		T.	
	(i) H. C. 38398.....	2. 12,2	13,6	13,1	10,6	12,0	13,4				70. 52. 12,72				176,60	109. 59. 56,13		T.	
	H. C. 38618.....	0. 45,5	48,5	47,1	45,7	45,2	47,0				76. 5. 46,58				251,08	115. 14. 44,47		T.	
	(k) B.A.C. 6953.....	2. 30,5	31,4	31,1	28,5	31,0	30,3				67. 37. 30,72				147,90	106. 44. 45,43		T.	
	H. C. 38974.....	1. 26,9	28,2	28,3	26,3	26,0	26,0				76. 31. 27,10				259,77	115. 40. 33,68		T.	
	H. C. 39148.....	2. 44,8	47,1	47,4	42,3	46,6	44,9				65. 22. 45,80				132,43	104. 29. 45,04		T.	
	(d) Bessel xx. 464 ...	4. 53,0	57,4	55,5	52,0	54,0	54,0				64. 54. 54,30				129,56	104. 1. 50,67		T.	
	H. C. 39450.....	2. 30,3	32,1	32,0	27,7	30,6	29,8				69. 27. 30,67				163,00	108. 35. 0,48		T.	
	Bessel xx. 779. ...	3. 43,1	44,0	46,3	39,9	43,9	41,9				64. 3. 43,57	29,851	56,6	54,0	125,13	103. 10. 35,51		T.	
	(e) Bessel xx. 876. ...	2. 51,2	53,3	54,0	49,1	51,6	50,8				65. 12. 51,95				131,99	104. 19. 50,75		T.	
	H. C. 40115.....	0. 39,0	42,0	39,9	37,9	38,9	39,1				70. 40. 39,53				175,41	109. 48. 21,75		T.	
	(d) H. C. 40257.....	4. 17,0	19,0	14,9	13,2	15,1	16,9				71. 4. 15,95				179,50	110. 12. 2,26		T.	
	(e)(l) Bessel xx. 1370. ...	3. 19,5	21,0	22,8	17,7	20,3	20,0				64. 58. 20,57		56,1	52,3	130,96	104. 5. 18,34		T.	
	Bessel xx. 1486. ...	3. 59,6	60,0	62,8	57,0	60,3	60,1				64. 29. 0,38				128,02	103. 35. 55,21		T.	
	ν Aquarii.....	1. 41,1	43,3	42,2	39,1	41,8	42,1				62. 51. 41,78				119,00	101. 58. 27,59		T.	
	(m) Metis.....	1. 4,4	7,0	5,5	4,6	4,1	4,2			+3	73. 6. 4,53	29,862	54,7	51,2	204,87	112. 14. 16,21		T.	
	Neptune.....	1. 45,6	48,0	48,0	46,3	47,1	46,2				62. 6. 47,05	29,860	54,0	49,9	115,78	101. 13. 29,64		T.	
	ζ Pegasi R.	3. 38,3	37,6	41,0	36,1	38,6	38,7		10,610		136. 33. 26,02				52,66	79. 56. 55,83		T.	
ζ Pegasi.....	1. 28,9	29,9	30,3	26,1	27,9	29,1		10,610		40. 51. 16,12				52,66	79. 56. 55,59		T.		
Sept. 26	α Cygni R.	0. 48,4	49,0	49,9	46,8	46,4	48,5		13,190		171. 14. 41,70	29,844	57,4	53,5	7,57	45. 14. 55,06		T.	
	α Cygni.....	1. 6,8	6,6	9,5	3,0	6,2	5,0		13,190		6. 9. 59,75				7,57	45. 14. 54,13		T.	
	(n) Metis.....	0. 19,0	21,1	19,2	16,8	18,9	20,0				73. 5. 19,20	29,847	56,2	52,5	204,06	112. 13. 30,07		T.	
	ζ Cephei B.....	1. 55,4	54,1	57,3	54,0	55,0	54,8		8,730		183. 57. 21,79				5,32	32. 32. 2,08		T.	
	ζ Cephei.....	1. 55,1	55,0	59,2	52,9	54,9	54,0		8,730		353. 27. 21,87				5,32	32. 32. 3,36		T.	
	Neptune.....	2. 15,4	15,5	16,9	14,0	14,4	16,0				62. 7. 15,60		55,3	52,0	115,27	101. 13. 57,68		T.	
Oct. 1	Zenith Point R...	2. 27,5	24,4	28,9	24,3	22,6	25,8	+4,7	10,170		178. 42. 22,41							T.	
Oct. 2	(e) H. C. 38081.....	2. 34,4	32,4	36,0	30,9	30,8	31,9	+5,7	9,930		72. 7. 34,68	29,700	48,9	43,4	194,63	111. 15. 34,90		T.	
	H. C. 38334.....	3. 7,8	6,5	10,9	5,3	5,9	7,1		9,930		67. 3. 9,29				146,77	106. 10. 21,65		T.	

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) 'Many stars in the field.' This is Argelander Z. 244, No. 33. (b) Argelander Z. 240, No. 81. (c) Extremely faint, but considered to be well bisected. (d) Negative correction for Runs. (e) Very faint. (f) Rain all the evening. (g) The negative divisions were inadvertently bisected with microscopes D, E, and F. Total correction for Runs of the six microscopes = +0",3. The observer was doubtful whether the circle was clamped. (h) Faint from clouds. (i) 'Not good.' (k) The readings of microscopes D and F were 48,5 and 50,3. They have been altered conjecturally. (l) 'A bright star preceded.' (m) Excessively faint, but the observation not altogether doubtful. (n) As good an observation as the faintness of the object allowed of.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						"	"		"	"	"	
Oct. 2	B.A.C. 6914.....	3.24,2	21,9	26,0	21,6	21,1	22,0		9,930		71.53.24,91	29,700	48,9	43,4	191,81	111.1.22,31	T.		
	H. C. 38740.....	1.39,8	38,9	41,5	37,1	36,4	39,0		9,930		70.31.40,56				176,87	109.39.23,02	T.		
	B.A.C. 6987.....	3.54,8	53,0	57,3	51,6	53,3	53,2				70.58.54,60				181,60	110.6.41,79	T.		
	H. C. 39172.....	1.58,9	57,5	61,4	54,3	57,0	58,9				68.21.58,37				157,03	107.29.20,99	T.		
	H. C. 39350.....	0.34,8	34,6	36,1	30,8	31,3	34,0				72.15.33,72				196,25	111.23.35,56	T.		
	(a) B.A.C. 7070.....	1.30,7	31,1	32,9	28,0	28,0	30,3				73.31.30,45				213,01	112.39.49,05	T.		
	Bessel xx. 696....	1.21,1	20,3	23,9	18,1	19,9	21,1				64.21.20,98				128,97	103.28.15,54	T.		
	Bessel xx. 779....	3.42,0	40,2	47,0	39,2	41,3	41,5				64.3.42,57				127,25	103.10.35,41	T.		
	Bessel xx. 900....	1.4,8	5,1	6,9	2,7	3,8	3,1				66.36.4,60	29,723	45,7	41,8	144,11	105.43.14,30	T.		
	H. C. 40115.....	0.37,0	37,5	38,8	34,1	36,0	37,0				70.40.36,85				179,14	109.48.21,58	T.		
	H. C. 40260.....	2.27,6	27,0	30,0	25,0	25,6	26,9				70.57.27,48				182,10	110.5.15,17	T.		
	8 Aquarii.....	0.51,0	51,0	53,6	47,5	49,9	51,9				64.30.50,98				130,45	103.37.47,02	T.		
	(b) Bessel xx. 1419..	4.23,0	23,1	23,2	18,6	20,9	24,0			+2 1/4	64.19.22,02				129,31	103.26.16,92	T.		
	H. C. 40866.....	2.63,0	62,2	67,0	59,3	62,6	62,1				67.13.3,28				148,61	106.20.17,48	T.		
	H. C. 41078.....	4.18,8	15,0	23,0	13,3	15,9	16,2				72.29.17,87	29,716	45,0	42,0	199,80	111.37.23,26	T.		
	B.A.C. 7378.....	4.37,9	34,2	43,0	35,7	37,9	38,5				71.39.38,45				189,80	110.47.33,84	T.		
	Bessel xxi. 397...	0.30,5	30,5	31,9	27,7	28,1	30,7				61.25.30,00				113,72	100.32.9,31	T.		
	(c) Metis.....	2.29,9	28,8	32,5	26,5	27,0	29,0				72.57.29,42	29,709	45,1	41,2	206,21	112.5.41,22	T.		
	(b) Neptune.....	4.60,0	61,2	61,4	56,6	57,7	60,8				62.9.59,62	29,707	44,0	40,8	117,65	101.16.42,86	T.		
Oct. 3	Bessel xx. 950....	2.23,5	24,5	26,3	21,7	23,0	22,7				66.27.24,07	29,224	54,1	54,4	137,07	105.34.26,73	T.		
	(b) 9 Aquarii.....	4.47,2	51,8	49,3	45,7	46,5	48,8				64.59.48,18				127,81	104.6.41,58	T.		
	(b) B.A.C. 7378.....	4.47,5	50,7	49,5	46,6	47,1	48,4				71.39.48,27				181,94	110.47.35,80	T.		
	(b) 18 Aquarii.....	4.11,4	10,2	12,6	8,8	10,0	13,7				64.24.10,97				124,33	103.31.0,89	T.		
	Neptune.....	0.30,8	32,7	30,9	27,5	28,8	31,6				62.10.30,48	29,216	53,4	52,4	113,01	101.17.9,08	T.		
Oct. 8	H. C. 38113.....	3.60,6	61,0	64,0	59,4	60,0	62,0	+6,4			72.44.2,02	29,848	48,4	43,8	203,09	111.52.12,58	T.		
	(b) H. C. 38396.....	4.42,5	45,3	42,3	42,7	41,6	45,3				75.9.43,22				239,99	114.18.30,68	T.		
	(d) H. C. 38705.....	4.26,3	29,4	26,9	25,0	25,6	29,8				67.59.28,10				154,62	107.6.50,19	T.		
	H. C. 40115.....	0.37,4	38,8	38,4	36,4	36,4	39,4				70.40.37,93	29,852	47,5	42,6	179,62	109.48.25,02	T.		
	Bessel xx. 1157...	1.46,1	47,9	50,0	46,8	47,0	49,0				65.51.48,18				139,39	104.58.55,04	T.		
	(e) H. C. 40440.....	3.17,3	17,0	21,0	16,0	15,3	17,5				66.18.18,05				142,42	105.25.27,94	T.		
	H. C. 40622.....	0.59,9	62,0	62,5	59,8	57,7	62,7				74.31.0,98				229,66	113.39.38,11	T.		
	B.A.C. 7312.....	2.47,4	48,4	50,7	47,0	47,9	49,0				68.37.49,00				160,32	107.45.16,79	T.		
	26 Capricorni....	4.44,6	44,9	49,4	44,0	45,2	46,5				71.39.46,78				190,46	110.47.44,71	T.		
	(f) H. C. 41514.....	1.7,0	8,1	8,5	6,0	6,4	10,0				71.11.7,90	29,860	46,9	42,1	185,31	110.19.0,68	T.		
	B.A.C. 7459.....	1.2,5	5,1	5,4	1,9	2,7	5,9				63.6.4,15				122,86	102.12.54,48	T.		
	Bessel xxi. 562....	4.19,0	18,7	23,2	17,0	19,6	21,0				62.4.20,67				117,46	101.11.5,60	T.		
	Bessel xxi. 572....	...	...	...	...	...	...		6,707		62.5.29,37				117,55	101.12.14,39	T.	
	Bessel xxi. 708....	0.21,3	25,0	23,0	20,0	21,4	24,2				60.15.22,57				108,78	99.21.58,82	T.		
	Bessel xxi. 818....	3.50,2	51,5	54,5	49,0	51,6	51,4				63.48.52,18				126,85	102.55.46,50	T.		
	H. C. 42407.....	3.51,9	51,0	54,7	49,6	50,3	52,3				69.28.52,47				168,10	108.36.28,04	T.		
	Bessel xxi. 995....	3.49,1	49,0	52,1	48,0	50,2	50,1				59.53.50,57				107,19	99.0.25,23	T.		
	(g) Metis.....	1.32,0	34,0	33,9	30,9	31,7	34,1		5,620	+4	72.43.3,66	29,872	46,8	42,0	203,81	111.51.14,94	T.		
	Bessel xxi. 1361..	1.24,5	26,2	24,0	22,4	24,3	26,1				62.1.24,88				117,29	101.8.9,64	T.		
	B.A.C. 7697.....	...	...	...	...	...	...		3,100		62.3.48,83				117,49	101.10.33,79	T.	
	Neptune.....	2.24,5	26,8	27,3	22,3	24,0	26,0				62.12.25,67				118,22	101.19.11,36	T.		
	η Pegasi R.....	1.43,1	45,0	46,9	43,2	42,1	46,0		11,137		155.56.21,03				24,85	60.33.32,35	T.		
	η Pegasi.....	3.44,9	43,2	50,1	42,0	43,4	43,9		11,137		21.28.21,66				24,85	60.33.33,98	T.		
Oct. 9	B.A.C. 6889.....	0.39,1	41,9	41,0	38,5	38,6	42,0				72.35.40,32	29,930	44,0	40,0	203,45	111.43.51,24	T.		
	(d)(b) H. C. 38705.....	4.24,0	25,9	25,2	21,5	21,7	26,9			+1	67.59.24,02				156,26	107.6.47,75	T.		
	H. C. 38932.....	1.32,0	33,0	34,2	30,9	31,0	33,0			+2	69.11.32,47				166,58	108.19.6,52	T.		
	H. C. 39125.....	3.34,5	33,6	38,4	31,8	34,7	33,9				67.8.35,25				149,65	106.15.52,37	T.		
	Bessel xx. 464....	4.47,5	45,5	53,3	44,3	46,6	46,5			+1	64.54.48,28				134,32	104.1.50,07	T.		
	Bessel xx. 612....	0.49,0	51,5	53,2	46,7	47,5	50,0				64.55.49,82				134,43	104.2.51,72	T.		
	H. C. 39742.....	0.56,0	57,2	59,9	55,2	56,9	58,0			+1	70.10.57,35				176,00	109.18.40,82	T.		
	Bessel xx. 900....	0.59,7	60,0	61,6	58,0	58,5	59,7				66.35.59,80	29,932	43,1	38,8	146,03	105.43.13,30	T.		
	(h) H. C. 40125.....	2.17,0	17,6	20,0	15,0	16,0	17,8				69.37.17,72				170,99	108.44.56,18	T.		

ONE REVOLUTION of the MICROMETER = 20''862. ONE INTERVAL from the middle wire for an Equatorial Star = 16'',6.
 ASSUMED CO-LATITUDE = 37°.47'.8'',00.

(a) 'The south-following of two of equal magnitude.' The other is B.A.C. 7069. (b) Negative correction for Runs. (c) 'Good.' (d) The recorded circle reading was 1° greater. (e) The identity of the observed object with H. C. 40440 is uncertain. (f) Cloudy. (g) 'Not very good.' Two other objects near and of about the same magnitude were also observed, but this was proved Oct. 9 to be the Planet. (h) 'The south-following and brighter of a double star.' The other is H. C. 40124. See the transit of Oct. 11.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refracti- on.	Apparent N.P.D. from the Observation.	Observer.	
		A	B	C	D	E	F						Int.	Ext.				
		"	"	"	"	"	"						"	"				"
Oct. 9	(a)(b) Metis.....	4.60,0	62,9	63,0	58,9	59,9	62,2				72.40.1,15	29,920	45,0	43,0	203,04	111.48.11,66	T.	
	α Aquarii.....	1.35,3	36,6	38,5	33,7	35,0	36,4				51.56.36,25				79,06	91.2.42,78	T.	
	(c) Neptune.....	2.48,3	49,0	52,6	46,2	48,0	49,5				62.12.49,53	29,910	45,3	42,0	118,40	101.19.35,40	T.	
	α Cephei.....	4.35,3	34,7	41,0	34,0	34,9	37,6		11,323		191.54.9,63				13,90	24.35.5,00	T.	
	α Cephei.....	1.27	1,1	6,1	1,0	1,6	2,8		11,323		345.30.35,17				13,90	24.35.8,74	T.	
	α Pegasi R.....	1.23,1	24,0	26,3	21,6	20,6	24,0		16,030		140.54.17,77				45,96	75.35.56,72	T.	
	α Pegasi.....	2.31,3	31,8	35,0	30,0	29,9	32,1		16,030		36.30.26,42				45,96	75.35.59,85	T.	
	β Ceti R.....	1.18,6	19,6	21,7	16,1	14,9	18,6		3,281		107.43.38,70	29,888	43,6	40,8	170,62	108.48.40,45	T.	
	β Ceti.....	3.43,0	42,0	45,9	40,1	41,2	42,2		3,281	+1¼	69.41.3,09				170,62	108.48.41,18	T.	
Oct. 10	B.A.C. 7049.....	4.37,0	37,4	42,5	34,5	37,4	38,8				73.44.38,92	29,728	45,3	41,4	217,32	112.53.3,71	T.	
	H. C. 39603.....	1.4,3	7,0	8,1	3,3	4,2	6,1				67.11.5,73				148,51	106.18.21,71	T.	
	H. C. 39742.....	0.58,0	60,0	61,6	56,0	58,6	59,2			+2	70.10.58,90				174,31	109.18.40,68	T.	
	(b) H. C. 39926.....	4.44,7	47,9	47,1	44,2	44,9	47,0				69.59.45,92				172,24	109.7.25,63	T.	
	(b)(d) H. C. 40042....	4.50,0	53,0	53,5	48,5	50,3	52,5				70.34.51,27				178,33	109.42.37,07	T.	
	(b) Bessel xx. 1068...	4.34,0	38,4	37,9	32,5	35,0	36,0				65.4.35,53				134,05	104.11.37,05	T.	
	(e) Bessel xx. 1157...	1.47,0	48,8	51,6	45,3	48,0	47,1				65.51.48,35				139,16	104.58.54,98	T.	
	(b) H. C. 40465.....	4.24,8	27,9	26,6	21,8	23,7	26,1				72.59.25,02				206,70	112.7.39,19	T.	
	Bessel xx. 1358...	0.42,1	46,1	46,1	40,1	43,3	45,5				62.55.44,02				121,57	102.2.33,06	T.	
	Bessel xx. 1450...	0.60,3	62,1	65,0	59,0	61,0	61,7				66.1.1,73				140,19	105.8.9,39	T.	
	(b) 26 Capricorni....	4.47,6	49,9	50,9	46,0	47,6	49,0				71.39.48,47				189,96	110.47.45,90	T.	
	(b) H. C. 41078.....	4.14,1	17,6	16,3	13,5	13,4	17,0				72.29.15,15	29,720	43,7	40,4	200,49	111.37.23,11	T.	
	Bessel xxi. 194....	0.26,1	28,8	30,9	23,5	26,7	26,5				64.55.27,18				133,33	104.2.27,98	T.	
	Bessel xxi. 294....	0.3,2	6,6	6,1	1,0	3,8	4,4				66.40.4,20				144,99	105.47.16,66	T.	
	(d) Bessel xxi. 383...	3.3,5	4,5	9,9	2,8	4,2	4,5				65.53.5,57				139,56	105.0.12,60	T.	
	H. C. 41785.....	2.39,0	40,0	44,7	37,1	39,9	41,0				65.57.40,85				140,07	105.4.48,39	T.	
	Bessel xxi. 599....	0.60,1	63,2	64,0	58,9	61,0	62,0				60.41.1,75				110,61	99.47.39,83	T.	
	(d) Bessel xxi. 699...	2.46,7	48,8	52,4	44,5	48,3	49,0				64.27.48,88				130,52	103.34.46,87	T.	
	Bessel xxi. 818...	3.49,0	49,4	54,7	46,5	50,1	50,4				63.48.50,83				126,70	102.55.45,00	T.	
	Bessel xxi. 914....	4.35,9	34,7	42,6	32,1	35,6	35,7				64.54.37,08				133,25	104.1.37,80	T.	
	(f) Metis.....	1.51,0	52,2	55,0	49,7	50,4	51,9			+1	72.36.52,08	29,720	42,4	39,4	202,55	111.45.2,00	T.	
	α Aquarii.....	1.34,4	35,3	38,9	31,9	33,4	36,9				51.56.35,47				79,12	91.2.42,06	T.	
	Neptune.....	3.9,5	9,9	14,4	7,1	8,8	11,0				62.13.10,78	29,712	42,2	38,5	118,51	101.19.56,76	T.	
	Polaris R. at 1 ^h . 8 ^m . 54 ^s by M.	4.29,5	27,7	33,9	27,4	28,8	30,0		10,796		214.59.13,71	29,662	39,8	35,0	43,77	1.29.31,05	T.	
	(g) Polaris at 1 ^h . 11 ^m . 29 ^s by M.	0.47,4	47,0	49,5	43,4	44,0	47,4		10,796		322.25.30,50				43,77	1.29.34,20	T.	
	Oct. 11	(b)(h) Bessel xx. 464..	4.50,0	55,0	55,4	50,1	51,0	52,0				64.54.52,22	29,513	45,9	43,5	131,50	104.1.51,19	T.
		(b)(i) Bessel xx. 664..	4.57,5	60,0	59,9	56,7	57,5	60,0				65.49.58,60				137,35	104.57.3,42	T.
H. C. 39742.....		0.58,0	61,0	61,2	57,9	59,0	61,8				70.11.0,03				172,29	109.18.39,79	T.	
(i) H. C. 39901.....		2.31,8	32,8	34,8	30,3	31,1	33,2			+1½	70.27.32,75				175,03	109.35.15,25	T.	
(i) H. C. 40056.....		2.57,8	58,9	63,5	58,0	57,9	60,4			+1½	70.32.59,93				175,95	109.40.43,35	T.	
(i) H. C. 40197.....		1.37,2	39,0	39,9	34,6	36,2	39,0				66.56.38,00				145,04	106.3.50,51	T.	
19 Capricorni.....		1.42,0	43,2	44,8	38,9	40,6	42,1			+2½	69.21.41,99				164,57	108.29.14,03	T.	
ζ Cygni R.....		1.3,1	5,2	8,2	1,2	2,0	6,6		7,461		156.6.57,57	29,504	45,4	43,0	24,28	60.22.55,24	T.	
ζ Cygni.....		1.48,4	48,1	52,6	44,1	46,2	47,9		7,461		21.17.41,24				24,28	60.22.52,99	T.	
(i) Bessel xxi. 304...		4.11,0	11,9	16,1	10,0	12,1	13,7				63.9.13,37				121,45	102.16.2,29	T.	
Oct. 13	Bessel xxi. 389....	1.5,6	8,0	9,6	3,9	5,0	8,0				65.1.6,92				132,24	104.8.6,63	T.	
	(k) α Arietis R.....	3.9,7	9,5	16,0	9,0	8,9	9,0		5,021	+¼	149.14.54,89	29,504	43,4	40,5	33,12	67.15.6,76	T.	
	α Arietis.....	2.57,3	57,1	62,6	55,0	54,8	56,3		5,021	+2½	28.9.42,08				33,12	67.15.2,67	T.	
	(l) Neptune.....	4.11,0	10,9	16,1	9,9	11,4	13,9				62.14.13,10	29,912	44,0	40,7	118,84	101.20.59,41	T.	
Oct. 15	η Pegasi R.....	1.30,0	30,6	33,0	26,9	28,2	30,4		10,499		155.56.19,76				24,95	60.33.33,72	T.	
	η Pegasi.....	3.31,3	28,1	36,4	27,6	27,5	29,7		10,499		21.28.20,44				24,95	60.33.32,86	T.	
	Zenith Point.....	2.16,0	17,1	22,2	16,0	15,0	17,4	+6,5	9,869		178.42.20,53						T.	
Oct. 15	H. C. 40115.....	0.30,5	31,0	32,9	28,7	29,5	31,3	+6,4			70.40.30,75	30,110	41,9	39,4	182,36	109.48.20,58	T.	
	(i) 8 Aquarii.....	0.47,7	50,4	52,3	46,9	50,1	50,8				64.30.49,87				132,81	103.37.50,15	T.	

ONE REVOLUTION of the MICROMETER = 20",862.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

ONE INTERVAL from the middle wire for an Equatorial Star = 16".6.

(a) Very faint, but the observation not doubtful. (b) Negative correction for Runs. (c) 'Good.' (d) Very faint. (e) The recorded circle reading was 1" greater. (f) Seen only at intervals. (g) By a circle transit of α Aquarii Oct. 10 Molyneux was fast 2^m. 27^s. Mercury unsteady. (h) Another of equal Mag., of the same R.A. and less N.P.D. (i) Cloudy. (k) Doubtful bisection, the star being barely visible through cloud. (l) Much obscured by cloud.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Run for 5".	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						Inch.	"		"	"	"	
Oct. 15	(a) H. C. 40744.....	4.23,0	21,4	28,1	19,7	22,1	23,6				69.34.23,92	30,110	41,9	39,4	171,33	108.42.2,72	T.		
	Bessel xxi. 26....	3.13,1	13,3	13,9	11,3	11,9	15,0				63.13.14,60				125,25	102.20.7,32	T.		
	H. C. 41149.....	1.47,8	49,1	51,8	45,9	47,0	49,1				63.26.48,83				126,52	102.33.42,82	T.		
	Bessel xxi. 188...	2.1,7	3,2	7,4	0,2	1,3	3,0				64.47.3,23				134,48	103.54.5,18	T.		
	Bessel xxi. 304...	4.6,0	6,5	12,2	4,2	7,0	8,9				63.9.8,35				124,87	102.16.0,69	T.		
	19 Aquarii.....	1.15,4	17,1	17,8	13,1	13,6	17,2				61.16.15,97				115,10	100.22.58,54	T.		
	β Aquarii.....	2.11,3	11,1	14,6	7,0	10,7	12,6				57.7.11,68	30,106	42,6	39,4	97,28	96.13.36,43	T.		
	Bessel xxi. 670...	1.36,9	38,0	39,5	33,9	35,3	36,7				65.31.37,05				139,25	104.38.43,77	T.		
	γ Capricorni.....	2.44,9	46,0	48,2	42,5	45,2	45,9				68.12.46,03				159,21	107.20.12,71	T.		
	Bessel xxi. 861...	2.22,1	22,0	26,0	18,5	20,8	22,2				62.42.22,43				122,42	101.49.12,32	T.		
	Bessel xxi. 943...	0.56,4	57,5	59,1	53,1	56,7	58,1				59.30.57,02				107,00	98.37.31,49	T.		
	(b) Neptune.....	4.52,1	55,0	54,5	49,8	51,0	54,0				62.14.52,72	30,102	42,8	39,7	119,90	101.21.40,09	T.		
	(b) Bessel xxi. 506..	4.45,0	49,0	48,0	41,6	45,0	45,9				65.14.45,70				137,30	104.21.50,47	T.		
	Bessel xxi. 575...	3.42,7	42,7	47,3	39,8	44,1	43,9				60.3.44,20				109,33	99.10.21,00	T.		
	η Pegasi R.....	1.23,2	29,2	32,8	27,5	26,3	29,6		10,411		155.56.20,67				25,16	60.33.33,02	T.		
	η Pegasi.....	3.29,3	26,0	34,1	23,8	26,6	27,5		10,411		21.28.20,05				25,16	60.33.32,68	T.		
	(c) Polaris SP. R. at 13 ^h . 7 ^m . 10 ^s by M.	1.23,9	22,3	25,6	18,9	20,0	24,0		18,980		217.58.15,51	30,036	48,4	48,9	47,94	1.29.33,92	T.		
	(b) Polaris SP. at 13 ^h . 9 ^m . 13 ^s by M.	4.36,5	36,0	39,5	32,7	33,3	35,5		18,980		319.26.28,14				47,94	1.29.32,33	T.		
Oct. 18	(d) H. C. 40056.....	2.61,0	61,9	64,0	59,5	60,7	62,6			+2	70.33.2,03	30,166	57,5	54,5	175,78	109.40.45,28	T.		
	Bessel xx. 1203...	2.51,3	54,1	55,3	49,1	52,6	52,7				64.42.53,12				130,16	103.49.50,75	T.		
	8 Aquarii.....	0.52,9	57,2	54,3	51,5	54,3	56,1				64.30.54,57				128,97	103.37.51,01	T.		
	Bessel xx. 1501...	0.32,9	36,0	33,9	30,0	33,2	34,5				64.40.33,53				129,93	103.47.30,93	T.		
	Bessel xxi. 26....	3.16,5	18,1	19,9	14,9	17,7	18,4				63.13.18,28				121,63	102.20.7,38	T.		
	(e) H. C. 41200.....	2.25,4	26,0	27,3	22,1	26,2	25,9				66.37.26,00				142,62	105.44.36,09	T.		
	Bessel xxi. 239...	3.34,9	36,7	38,7	32,7	37,9	36,2				64.33.36,95				129,24	103.40.33,66	T.		
	Bessel xxi. 348...	2.3,1	6,1	6,6	2,3	4,1	5,0				65.2.4,97	30,171	56,4	53,7	132,36	104.9.4,80	T.		
	B.A.C. 7463.....	0.11,7	14,7	13,3	9,2	10,5	13,1				70.40.12,13				177,32	109.47.56,92	T.		
	(b) Bessel xxi. 592...	4.38,0	42,0	38,9	34,5	37,2	38,9				64.59.38,17				132,11	104.6.37,75	T.		
	Bessel xxi. 686...	2.60,7	62,0	63,0	57,9	60,0	61,9				62.58.1,57				120,48	102.4.49,52	T.		
	Bessel xxi. 796...	2.31,1	32,0	32,8	28,1	29,8	31,9				60.42.31,46				109,36	99.49.8,31	T.		
	(b)(f) Bessel xxi. 902	4.42,9	47,6	43,5	39,3	44,1	45,1				65.14.43,68				133,68	104.21.44,83	T.		
	Bessel xxi. 1023..	2.29,9	31,0	31,0	25,6	29,0	31,5				61.37.30,20				113,67	100.44.11,34	T.		
	(g) Metis.....	0.33,5	35,0	34,2	29,9	32,0	34,0				72.5.33,22	30,172	56,0	53,0	193,40	111.13.34,09	T.		
	ι Aquarii.....	3.37,4	38,0	40,6	34,7	36,7	37,2				65.28.38,20				135,35	104.35.41,02	T.		
	(h) Bessel xxi. 49...	3.31,4	31,1	33,0	27,0	32,0	31,8				59.38.31,80				104,80	98.45.4,07	T.		
	Bessel xxi. 130...	1.62,9	64,8	65,0	59,9	62,6	65,3				58.2.3,85				98,25	97.8.29,57	T.		
	Bessel xxi. 238...	2.36,0	38,0	38,1	32,8	37,3	37,7				55.42.37,20				89,79	94.48.54,46	T.		
Oct. 19	Neptune.....	1.7,1	10,6	7,9	3,9	7,8	9,0				62.16.7,95	29,828	56,1	54,3	115,39	101.22.50,81	T.		
	(i) Bessel xxi. 629..	1.49,4	53,2	53,7	48,6	50,9	50,9				65.1.51,52				130,68	104.8.49,67	T.		
Oct. 26	Bessel xx. 860....	3.52,1	52,1	55,0	49,7	51,4	51,7	+7,3			65.18.52,93	29,788	51,8	49,0	133,70	104.25.53,92	T.		
	B.A.C. 7209.....	2.32,4	33,0	33,0	30,0	30,0	31,8				69.27.32,32				165,10	108.35.4,71	T.		
	H. C. 40311.....	2.48,0	49,0	53,3	48,0	47,9	49,0				70.32.49,88				175,53	109.40.32,70	T.		
	Bessel xx. 1450...	1.3,5	4,9	6,1	3,0	1,1	5,0				66.1.4,18				138,28	105.8.9,75	T.		
	(b) Bessel xxi. 1036..	4.39,7	41,0	41,7	37,9	39,2	40,7				58.59.39,95	29,804	49,4	47,6	101,97	98.6.9,21	T.		
	Bessel xxi. 1126..	2.33,1	34,0	35,7	31,3	32,0	33,5				65.37.33,88				136,17	104.44.37,34	T.		
	(b)(k) Metis.....	4.49,0	51,6	51,1	47,2	48,3	52,0				71.24.49,82	29,804	49,4	47,6	185,35	110.32.42,46	T.		
	Bessel xxi. 22...	1.6,0	8,0	9,9	5,0	5,4	7,8				58.1.7,28				98,08	97.7.32,65	T.		
	(b) Bessel xxi. 91...	4.31,3	33,0	32,1	27,2	29,9	32,0				65.29.30,88				135,30	104.36.33,47	T.		
	Bessel xxi. 164...	0.19,4	20,2	21,0	15,9	17,0	20,0				65.40.18,98				136,47	104.47.22,74	T.		
	(l) Bessel xxi. 231..	1.20,0	20,6	22,0	16,0	19,0	21,5				61.26.20,17				112,81	100.33.0,27	T.		
	(m) Neptune.....	2.43,0	43,1	46,6	40,9	42,8	42,4				62.17.43,80	29,812	49,3	47,3	117,14	101.24.28,23	T.		

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) 'Two stars of Mag. 9,10 preceded.' (b) Negative correction for Run. (c) Sunshine made the divisions scarcely visible through the microscope.
 C and E. Molynieux was last, 2^m.32. (d) 'The second of four.' (e) 'A star of Mag. 5,6 and greater N.P.D. followed.' (f) 'The south-preceding
 of two of equal mag. 10^a apart.' (g) Excessively faint. No object near. (h) 'The south-preceding of two of the 9th Mag.' (i) Cloudy. (k) 'Another
 object north-following. As good a bisection as was practicable.' (l) 'Of Mag. 8, but near the Moon.' (m) Bright, though the Moon was very near.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						Inch.	"			
Oct. 26	Bessel xxii. 526..	0.54,0	56,0	56,7	52,0	52,2	55,2				60.55.54,57	29,812	49,3	47,3	110,51	100.2.32,37	T.
	Bessel xxii. 607..	2.26,3	27,1	28,9	22,8	24,9	26,2				63.52.26,62				125,62	102.59.19,53	T.
	(a) Bessel xxii. 700..	1.4,9	7,1	8,6	2,0	3,7	7,0			+1	65.31.5,78				135,59	104.38.8,66	T.
	Bessel xxii. 797..	0.34,8	36,1	37,6	32,9	34,8	36,4				64.40.35,57				130,33	103.47.33,19	T.
	(b) Bessel xxii. 885..	4.45,8	48,4	48,5	43,0	43,8	48,0				62.44.46,18				119,46	101.51.32,93	T.
	Bessel xxii. 981..	3.40,6	41,0	44,2	37,9	39,8	41,0				61.3.41,65				111,12	100.10.20,06	T.
Oct. 27	Neptune	2.56,9	59,9	60,0	55,6	56,6	56,5				62.17.58,30	30,010	57,1	58,1	115,35	101.24.40,94	T.
	δ Piscium	3.10,0	10,7	12,9	6,6	8,4	9,7				44.8.10,48	30,071	55,0	54,8	58,87	83.13.56,64	T.
	ε Piscium	2.52,2	52,9	56,1	48,9	51,8	53,2				46.2.53,22				62,92	85.8.43,43	T.
	Bessel ii. 866.	0.23,9	24,4	23,3	19,1	20,0	23,2				57.45.22,42	30,106	54,5	54,0	96,77	96.51.46,48	T.
	Bessel iii. 278	2.55,4	55,7	59,0	51,1	55,0	54,8				59.12.55,87				102,56	98.19.25,72	T.
	Bessel iii. 442	4.42,2	41,5	46,9	38,1	41,2	41,2				59.14.43,00	30,112	53,8	53,9	102,73	98.21.13,02	T.
	(c) Astræa	2.27,9	28,0	30,1	24,1	25,5	26,7				40.52.27,65				52,71	79.58.7,65	T.
	Zenith Point	2.41,3	41,3	46,3	39,8	38,0	41,5	+7,7	11,024		178.42.20,71						T.
	Bessel xxi. 1401..	4.46,8	49,9	47,1	43,1	44,9	48,1	+7,3			59.54.47,82	30,534	49,5	47,3	108,50	99.1.23,61	T.
Oct. 29	(d) Bessel xxii. 148 ..	2.60,5	60,8	64,9	58,9	58,9	61,1				57.18.1,58				97,74	96.24.26,61	T.
	Bessel xxii. 267 ..	0.38,5	39,4	38,8	33,0	35,4	38,8				56.45.37,47				95,71	95.52.0,47	T.
	Neptune	3.14,1	14,0	17,9	10,1	11,9	14,2				62.18.14,48	30,542	48,9	46,9	120,14	101.25.1,91	T.
	Bessel xxii. 526 ..	0.50,3	52,0	52,9	45,9	47,1	50,2				60.55.49,93				113,30	100.2.30,52	T.
	Bessel xxii. 531 ..	...	...	...	...	...	...		20,255		60.52.15,99				113,01	99.58.56,29	T.
	64 Aquarii	1.38,1	40,1	42,0	36,0	37,3	41,2				61.41.39,52				117,02	100.48.23,83	T.
	H. C. 44443	3.54,0	52,3	58,4	49,9	51,0	52,9				58.3.54,03				100,83	97.10.22,15	T.
	Bessel xxii. 769 ..	...	...	...	...	...	...		7,201		58.4.52,42				100,89	97.11.20,60	T.
	Bessel xxii. 864 ..	2.19,9	19,4	21,7	16,6	16,4	20,1				60.37.19,58				111,84	99.43.58,71	T.
	Bessel xxii. 935 ..	1.39,6	40,7	43,4	35,6	37,0	39,0				64.46.39,62				134,25	103.53.41,16	T.
	(b) Bessel xxii. 1007 ..	4.59,0	62,0	60,9	55,2	56,5	60,0				62.44.58,93				122,49	101.51.48,71	T.
	(b) Bessel xxii. 1083 ..	4.59,5	60,5	61,1	54,6	57,0	59,4			+2	54.34.58,63				88,21	93.41.14,13	T.
	Bessel xxii. 1185 ..	0.17,5	18,9	19,8	13,0	16,1	17,9				59.45.17,27				107,91	98.51.52,47	T.
	h ⁴ Aquarii	3.34,9	34,0	39,1	31,7	33,6	34,7				59.23.35,53				106,34	98.30.9,16	T.
	Bessel xxiii. 78 ..	0.24,0	24,0	25,1	20,1	20,0	23,5				52.30.22,88	30,522	47,4	45,6	81,87	91.36.32,04	T.
Oct. 31	B.A.C. 8152	0.46,0	47,5	48,9	43,9	45,0	49,0				51.25.46,90				78,73	90.31.52,92	T.
	α Arietis	4.38,0	34,9	44,1	34,1	36,0	37,0				28.9.38,48	30,476	45,0	43,3	34,01	67.14.59,78	T.
	B.A.C. 7640	3.27,2	25,1	30,1	21,9	24,1	25,4			11,590	66.42.53,30	29,516	43,3	39,3	144,67	105.50.5,26	T.
	(e) Metis	0.7,0	7,1	7,9	3,1	4,6	7,0				70.55.6,13				181,38	110.2.54,80	T.
	Bessel xxii. 266 ..	1.35,0	34,7	37,1	30,2	33,5	35,0				58.36.34,63				101,17	97.43.3,09	T.
	Neptune	3.35,6	34,2	39,0	31,6	33,2	34,1				62.18.35,48		43,0	39,1	118,04	101.25.20,81	T.
	(f) Bessel xxii. 467 ..	4.28,0	25,9	32,9	24,4	27,4	26,8			+1	60.4.28,62				107,41	99.11.3,32	T.
	Bessel xxi. 416 ..	0.59,3	62,0	62,3	55,9	58,6	59,5				65.5.59,83	29,608	48,7	46,4	132,27	104.12.59,39	T.
	Bessel xxi. 752 ..	3.23,0	23,0	27,0	19,2	23,1	23,5				61.53.23,95				114,53	101.0.5,77	T.
	Bessel xxi. 861 ..	2.27,4	27,7	28,8	21,7	25,0	26,0				62.42.26,68				118,67	101.49.12,64	T.
Nov. 2	Bessel xxi. 950 ..	1.47,0	49,6	52,2	43,5	47,5	47,9				64.41.48,38				129,81	103.48.45,48	T.
	H. C. 42558	1.56,9	57,0	59,3	52,6	56,8	55,5				59.46.56,82				104,85	98.53.28,96	T.
	(g) Bessel xxi. 1087 ..	2.19,0	20,2	22,1	15,0	19,6	20,0				62.57.19,85				119,97	102.4.7,11	T.
	Neptune	3.50,0	51,1	54,5	47,9	50,6	50,1				62.18.51,63	29,601	47,9	43,9	117,22	101.25.36,14	T.
	(h) Metis	2.22,6	23,1	27,9	20,6	22,2	24,5	+6,4			70.22.23,98	29,212	45,0	43,4	172,43	109.30.2,77	T.
	(i) Neptune	4.9,7	8,5	14,1	8,0	7,9	10,1				62.19.10,60				115,83	101.25.52,79	T.
	Bessel xxii. 548 ..	3.4,9	5,0	9,9	3,9	5,1	6,4				56.33.6,52				91,58	95.39.24,46	T.
	Bessel xxii. 629 ..	1.54,5	54,0	58,5	50,2	52,0	53,3				65.1.54,15				130,89	104.8.51,40	T.
	Bessel xxii. 708 ..	3.50,0	50,5	54,7	47,1	49,0	50,5				63.53.51,12				124,23	103.0.41,71	T.
	(k) Bessel xxii. 780 ..	0.58,3	59,7	61,6	56,0	57,9	59,7				60.10.59,07				105,82	99.17.31,25	T.
Nov. 5	Bessel xxii. 870 ..	4.26,0	26,0	30,4	23,1	26,9	25,0				55.4.27,18				86,57	94.10.40,11	T.
	(l) Bessel xxii. 946 ..	1.49,9	52,0	54,5	46,0	50,6	51,3				62.6.51,28				114,81	101.13.32,45	T.
	B.A.C. 7993	0.19,0	20,0	20,5	16,1	16,1	19,5				56.30.18,60				91,42	95.36.36,38	T.
	H. C. 45028	2.26,1	26,2	29,7	22,1	26,6	25,9				55.32.26,62	29,223	44,3	43,0	88,22	94.38.41,20	T.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) No other object. (b) Negative correction for Runs. (c) No object near this. (d) 'The north-preceding of two equal.' (e) 'A fainter of greater N.P.D. preceded, and a brighter of less N.P.D. followed.' (f) Cloudy. (g) 'The south-preceding of two of equal magnitude.' (h) Extremely faint, but considered to be satisfactorily observed. (i) 'Good.' (k) Very faint. (l) The division bisected with microscope D being 5' in advance the correction applied for the Run of this microscope was calculated for 6".46".

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for S.	Micrometer Reading.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		" "	" "	" "	" "	" "	" "					Inch.	" "	" "			
Nov. 5	* R. 22 ^h . 54 ^m . 16 ^s .	2.26,1	26,2	29,7	22,1	26,6	25,9		8,180		55.33.4,59	29,223	44,3	43,0	88,25	94.39.19,20	T.
	Bessel XXIII. 18 ..	2.42,5	43,0	47,3	40,0	44,6	45,1				58.47.44,32				100,14	97.54.10,82	T.
	(a) Bessel XXI. 103 ..	2.43,1	43,9	48,1	40,6	42,5	42,9				60.37.44,10				107,93	99.44.18,39	T.
	(b) Bessel XXIII. 104 ..	...	...	...	...	...	...		8,779		60.38.9,57				107,96	99.44.43,89	T.
	(c) Bessel XXIII. 263 ..	0.14,8	16,9	17,0	10,7	13,9	15,7				58.20.14,88				98,33	97.26.39,57	T.
	Bessel XXIII. 379 ..	2.6,5	6,8	10,9	3,0	5,8	7,9				56.57.7,27				93,12	96.3.26,75	T.
	Bessel XXIII. 471 ..	4.14,0	13,0	20,1	11,2	13,1	14,9				52.19.15,28				78,29	91.25.19,93	T.
	Bessel XXIII. 560 ..	1.32,0	33,0	33,7	27,7	30,1	33,2				55.26.31,93				87,89	94.32.46,18	T.
	Bessel XXIII. 642 ..	1.10,6	12,1	12,1	8,9	11,7	11,8				54.41.11,45	29,238	43,8	42,4	85,57	93.47.23,38	T.
	(d) H. C. 46493	4.43,7	46,1	47,0	41,7	42,9	46,1				57.59.44,52				97,17	97.6.8,05	T.
	H. C. 46609	1.26,0	26,5	29,9	22,8	25,1	27,5				56.11.26,62				90,59	95.17.43,57	T.
Nov. 6	(e) H. C. 40877	0.11,2	13,0	13,3	10,7	8,9	13,5				71.30.11,82	29,637	43,4	41,9	187,53	110.38.5,71	T.
	(e) H. C. 41163	1.29,0	30,7	33,3	27,5	27,1	29,3				62.6.29,75				116,81	101.13.12,92	T.
	(e) Bessel XXI. 265 ..	4.23,5	23,3	29,9	22,1	23,1	24,5				61.59.25,33				116,22	101.6.7,91	T.
	(e) Bessel XXI. 389 ..	1.4,8	7,9	10,5	4,3	4,8	7,0				65.1.6,78				133,13	104.8.6,27	T.
	(f) Metis	0.21,3	22,0	24,4	18,1	19,5	22,2				70.15.21,32	29,655	42,4	41,0	174,75	109.23.2,43	T.
	Neptune	4.10,3	10,0	16,0	7,4	9,7	11,3				62.19.11,67				118,18	101.25.56,21	T.
	Bessel XXII. 589 ..	0.17,7	19,0	20,0	15,5	16,0	18,9				59.0.17,92				102,90	98.6.47,18	T.
	Bessel XXII. 694 ..	3.23,0	22,1	27,0	18,1	22,4	22,5				58.28.23,23				100,74	97.34.50,33	T.
	(g) Bessel XXII. 771 ..	2.56,1	57,0	61,5	54,6	55,6	57,1				60.7.57,62				107,74	99.14.31,72	T.
	(h) B.A.C. 7951. nf. ..	3.57,5	58,0	64,8	55,8	58,5	60,0				55.53.59,95				91,13	95.0.17,44	T.
	75 Aquarii	2.16,5	16,8	19,0	12,0	13,9	16,8				63.52.16,32				126,60	102.59.9,28	T.
	Bessel XXII. 1036 ..	0.52,2	55,0	55,5	51,3	51,1	53,5				54.50.53,28				87,57	93.57.7,21	T.
	(d) Bessel XXII. 1120 ..	4.36,0	40,2	38,1	33,6	35,6	37,9				61.14.36,82				112,85	100.21.16,03	T.
	Bessel XXII. 1269 ..	0.16,1	17,0	19,0	13,3	13,6	16,7				52.0.16,00	29,672	41,7	40,5	78,98	91.6.21,34	T.
	H. C. 45395	3.49,0	49,5	54,2	45,4	48,5	49,0				55.38.50,08				90,40	94.45.6,84	T.
	Bessel XXIII. 198 ..	4.6,7	6,1	12,7	4,4	7,0	6,1				56.14.8,05				92,45	95.20.26,86	T.
	Bessel XXIII. 263 ..	0.12,2	15,0	15,4	9,1	11,2	14,0				58.20.12,87				100,35	97.26.39,58	T.
	Bessel XXIII. 379 ..	2.2,9	3,0	7,2	0,5	1,8	4,7				56.57.3,78				95,04	96.3.25,18	T.
	B.A.C. 8184	4.36,0	35,0	41,9	33,0	35,9	35,9		+1½		56.14.37,24				92,48	95.20.56,08	T.
	Bessel XXIII. 560 ..	1.30,1	31,1	32,0	27,0	28,0	30,7				55.26.30,13				89,70	94.32.46,19	T.
	Bessel XXIII. 642 ..	1.10,0	11,1	12,4	8,1	8,3	10,0				54.41.10,23				87,18	93.47.23,77	T.
	Bessel XXIII. 697 ..	0.46,1	48,2	49,0	43,8	45,0	46,3		+1½		49.15.46,53				71,59	88.21.44,48	T.
	Bessel XXIII. 797 ..	1.61,1	61,9	65,3	58,3	59,6	62,4				51.12.1,87				76,72	90.18.4,95	T.
	Bessel III. 278	2.53,1	53,6	59,0	51,2	53,2	53,4				59.12.54,53	29,813	38,5	36,8	105,25	98.19.26,14	T.
	(i) Astræa	3.51,0	49,0	56,7	47,7	49,0	51,2				41.38.51,58				55,54	80.44.33,48	T.
Nov. 7	Zenith Point	2.23,1	22,7	28,7	22,3	19,8	23,1		10,103		178.42.21,64						T.
Nov. 10	30 Capricorni.	3.58,0	58,6	63,0	54,6	57,9	56,2				69.28.58,90	30,198	49,8	47,9	167,96	108.36.33,22	T.
	Bessel XXI. 416 ..	0.58,5	62,0	61,9	55,9	59,9	58,1				65.5.59,58				134,47	104.13.0,41	T.
	(d) Bessel XXI. 1025 ..	4.48,9	52,5	50,9	46,0	50,0	49,4				59.29.49,58				105,37	98.36.21,31	T.
	(k) Bessel XXI. 1087 ..	2.17,7	19,0	21,1	12,3	17,6	17,6				62.57.18,03				121,97	102.4.6,36	T.
	Bessel XXI. 1199 ..	1.16,0	17,7	19,1	12,2	15,6	15,4				66.6.16,27				141,09	105.13.23,72	T.
	Bessel XXI. 1300 ..	2.34,2	35,7	38,4	30,5	35,4	33,8				64.37.35,22				131,54	103.44.33,12	T.
	(l) Metis	1.49,0	51,1	52,0	45,0	49,1	48,9			+2	69.46.49,36	30,196	49,4	47,9	170,75	108.54.26,47	T.
	(m) Bessel XXII. 167 ..	1.43,1	47,1	47,3	40,5	44,4	44,9		6,961	+2½	63.17.48,16				123,82	102.24.38,34	T.
	Bessel XXII. 175 ..	1.43,1	47,1	47,3	40,5	44,4	44,9				63.16.44,92				123,73	102.23.35,01	T.
	Bessel XXII. 304 ..	0.55,8	57,5	58,3	52,5	56,3	57,0				65.50.56,43				139,35	104.58.2,14	T.
	Neptune	4.21,8	20,7	25,9	16,6	21,0	20,5				62.19.22,02				118,63	101.26.7,01	T.
	δ Andromedæ R.	2.45,7	45,9	49,0	43,6	45,0	46,2		11,310		156.32.19,15	30,195	47,3	45,8	24,19	59.57.34,68	T.
	δ Andromedæ	2.47,4	47,1	52,9	43,7	47,8	47,0		11,310		20.52.20,92				24,19	59.57.31,47	T.
	62 Piscium	0.24,8	26,9	26,0	18,3	22,1	26,1				44.25.24,12				60,81	83.31.11,29	T.
	(n) ε Piscium R.	1.35,0	36,0	37,2	31,9	34,0	35,0		13,575	+2	133.35.20,52				59,56	82.55.8,68	T.
	ε Piscium	0.35,0	36,3	38,0	31,3	33,7	35,2		13,575	+4	43.49.20,75				59,56	82.55.6,67	T.
	ε Piscium	2.50,9	52,0	55,4	47,7	50,8	52,2				46.2.52,10				64,36	85.8.42,82	T.
	(o) Astræa	1.24,1	24,3	26,1	20,0	22,9	23,3				41.56.23,75	30,206	47,8	46,0	55,77	81.2.5,88	T.
	(d) Bessel III. 442	4.41,6	45,5	44,1	39,4	41,4	42,8				59.14.42,40				104,74	98.21.13,50	T.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) 'The north-preceding and brighter of a coarsely double star.' (b) 'South-following the double star.' (c) 'A smaller of less N.P.D. precedes.'
 (d) Negative correction for Runs. (e) Cloudy. (f) 'An object of equal magnitude preceded at some distance.' (g) 'A bright star of less N.P.D. preceded.'
 (h) 'A close double star, followed by a faint star of greater N.P.D.' (i) 'A fainter object followed about 13°.' (k) 'Too faint for accurate bisection.' (l) 'The south-preceding of two of nearly equal magnitude.' (m) 'Preceding the next star about 16°.'
 (n) A diffused mass of light was bisected, the mercury being much disturbed. (o) The Planet bright and observed with certainty.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refract.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						"	"		"	"	"	
Nov. 10	40 Persei (a)* R. 3 ^h . 36 ^m . 24 ^s .	1. 11,2 0. 29,0	12,3 30,0	16,9 31,1	7,2 23,1	11,0 26,1	11,3 27,5				17. 26. 11,90 16. 10. 27,90	30,206	47,8	46,0	20,13 18,68	56. 31. 18,39 55. 15. 32,94	T. T.		
Nov. 13	(b)(c) Metis (b) Neptune	4. 19,5 4. 23,9	22,9 27,2	20,0 24,9	16,4 18,9	17,6 22,7	19,1 25,2	+7,5			69. 24. 19,08 62. 19. 23,65	29,745	48,9	48,1	164,68 116,82	108. 31. 52,01 101. 26. 8,72	T. T.		
Nov. 14	(b) Neptune Bessel xxii. 910. . . Bessel xxii. 1049. . Bessel xxii. 1057. . . Bessel xxii. 1196. . Bessel xxiii. 7. . . . Bessel xxiii. 84. . . (d) Bessel xxiii. 103. . (e) Bessel xxiii. 104. . Bessel xxiii. 309. . Bessel xxiii. 379. . (f) Astræa.	4. 22,4 0. 28,0 2. 51,0 ... 3. 29,1 3. 17,0 1. 48,5 4. 5,3 1. 64,9 2. 36,0	24,0 28,3 49,1 ... 26,5 17,0 50,0 4,0 63,0 35,7	24,8 31,1 56,2 ... 33,0 24,1 53,4 11,9 69,7 42,9	16,0 24,0 46,7 ... 25,9 13,8 44,9 2,1 59,7 32,3	17,7 25,1 48,0 ... 27,1 14,8 46,0 3,7 63,9 34,0	23,5 28,3 50,0 ... 27,7 18,0 50,3 5,0 64,1 36,5		12,034		62. 19. 21,25 61. 0. 24,25 57. 22. 50,88 57. 22. 8,45 57. 28. 29,08 60. 53. 18,27 60. 36. 49,30 60. 37. 42,64 60. 38. 9,61 62. 29. 6,37 56. 57. 4,73 42. 12. 36,88	29,533 29,526	41,0 40,9	39,5 39,4	118,08 111,62 96,39 96,35 96,75 111,07 109,80 109,86 109,90 118,91 94,79 55,82	101. 26. 7,58 100. 7. 4,12 96. 29. 15,52 96. 28. 33,05 96. 34. 54,08 99. 59. 57,59 99. 43. 27,35 99. 44. 20,75 99. 44. 47,76 101. 35. 53,53 96. 3. 27,77 81. 18. 20,95	T. T. T. T. T. T. T. T. T. T. T. T. T.		
Nov. 16	Bessel xxiii. 642. . Bessel xxiii. 797. . (g) Bessel xxiii. 896. . α Andromedæ R. . . (b) α Andromedæ. . . (b) β Arietis R. . . . β Arietis (b) α Arietis (h) Astræa. Bessel iii. 278. . . . (b) Bessel iii. 442. . .	1. 8,4 1. 60,0 0. 21,0 1. 9,4 4. 19,1 4. 29,0 0. 19,8 4. 37,1 0. 12,9 2. 53,5 4. 39,9	10,5 62,6 22,0 10,5 20,7 32,1 19,6 38,5 15,6 54,3 43,1	10,9 65,0 22,1 13,8 23,1 33,3 22,3 41,1 16,6 58,3 42,2	5,1 58,8 16,7 6,5 15,0 25,7 14,0 30,9 10,3 50,9 36,7	8,0 59,6 19,4 7,3 15,9 26,9 16,9 34,5 9,1 52,4 39,0	9,0 61,9 22,9 10,5 19,1 31,5 20,1 36,1 16,2 54,0 41,9		11,176 11,176 10,166 10,166	+2	54. 41. 8,93 51. 12. 1,82 58. 20. 20,77 154. 45. 45,42 22. 38. 54,44 146. 34. 26,16 30. 50. 15,41 28. 9. 36,27 42. 20. 13,50 59. 12. 54,63 59. 14. 40,38	30,052 30,065	42,4 40,9	39,8 36,5	88,42 77,82 101,79 26,56 26,56 37,84 37,84 34,03 57,50 106,38 106,51	93. 47. 25,60 90. 18. 7,89 97. 26. 50,81 61. 44. 8,89 61. 44. 9,25 69. 55. 39,43 69. 55. 41,50 67. 14. 58,55 81. 25. 59,25 98. 19. 29,26 98. 21. 15,14	T. T. T. T. T. T. T. T. T. T. T. T.		
Nov. 17	(i) Metis Neptune (k) ζ Pegasi	2. 26,4 4. 3,8 1. 12,0	26,6 3,1 14,0	31,0 10,7 17,9	25,0 0,9 10,9	25,4 3,9 10,6	28,0 4,5 14,3		9,983	+2	68. 52. 27,68 62. 19. 5,50 40. 51. 14,04	30,228	37,4	35,2	167,05 121,92 54,95	108. 0. 2,98 101. 25. 55,67 79. 56. 57,24	T. T. T.		
Nov. 19	Zenith Point	1. 1,1	4,1	7,7	1,7	2,1	4,0	+7,9	9,244		178. 42. 19,75						T.		
Nov. 21	(b)(l) Metis (b)(f) Neptune Bessel xxii. 881. . . Bessel xxii. 998. . . 44 Piscium. δ Andromedæ R. . . δ Andromedæ. . . . (m) β Ceti.	4. 28,0 3. 46,9 1. 38,5 2. 52,9 2. 28,0 2. 34,1 2. 34,1 1. 18,8	32,0 32,2 40,6 54,8 28,8 35,0 33,1 20,3	31,0 49,9 43,1 57,9 30,8 40,0 41,0 22,0	25,1 44,1 36,2 49,2 24,1 32,1 30,0 15,1	28,0 47,7 39,6 54,3 27,9 35,0 33,9 17,4	32,1 50,2 40,5 54,1 29,0 35,8 34,0 18,6		+7,5		68. 19. 29,23 62. 18. 44,87 63. 1. 40,17 61. 47. 54,60 49. 47. 28,72 156. 32. 20,85 20. 52. 19,86 69. 41. 3,91	30,027 30,027	42,2 40,8	39,3 38,1	159,78 120,04 123,87 117,41 74,19 24,44 24,44 172,40	107. 26. 57,26 101. 25. 33,16 102. 8. 32,29 100. 54. 40,26 88. 53. 31,16 59. 57. 31,34 59. 57. 32,55 108. 48. 44,56	T. T. T. T. T. T. T. T.		
Nov. 24	Neptune Bessel xxii. 612. . . (n) Bessel xxii. 748. . Bessel xxii. 822. . . (o) Bessel xxii. 914. . Bessel xxii. 1258. . Bessel xxiii. 38. . . ψ ¹ Aquarii B.A.C. 8129. Bessel xxiii. 343. . . Bessel xxiii. 427. . . Bessel xxiii. 566. . . (p) β Ceti R. β Ceti	3. 26,3 3. 26,3 0. 6,5 1. 55,6 0. 21,0 0. 47,4 2. 27,3 2. 38,0 2. 10,9 2. 36,3 3. 49,6 4. 43,1 1. 11,5 3. 49,3	29,0 29,1 10,9 58,6 25,1 52,5 29,9 41,3 13,2 39,3 51,9 44,5 13,0 51,0	31,4 31,3 10,4 59,4 24,0 51,6 31,0 42,5 15,3 41,8 56,0 49,5 14,5 55,0	24,1 24,5 4,5 53,3 18,8 47,1 24,6 36,4 7,8 34,9 47,0 41,4 8,1 48,0	26,3 27,4 6,0 55,3 20,7 49,3 26,8 38,8 10,3 37,3 51,0 43,2 7,8 49,1	28,0 28,6 10,9 58,8 25,3 50,6 30,6 41,1 14,2 38,6 52,2 45,3 14,1 51,4	+8,6		+2 +4	62. 18. 28,52 61. 3. 28,85 64. 0. 8,23 57. 36. 57,38 60. 20. 22,58 60. 30. 49,98 51. 17. 29,07 60. 47. 40,45 57. 57. 12,58 53. 27. 38,78 60. 58. 52,38 55. 34. 45,85 107. 43. 30,83 69. 41. 9,68	29,296 29,302	43,3 33,8	38,8 35,0	117,23 111,13 126,40 96,64 107,85 108,63 76,86 110,76 97,41 83,18 111,63 90,04 169,80 169,80	101. 25. 13,37 100. 10. 7,60 103. 7. 2,25 96. 43. 21,64 99. 26. 58,05 99. 37. 26,23 90. 23. 33,55 99. 54. 18,83 96. 43. 37,61 92. 33. 49,58 100. 5. 31,63 94. 41. 3,51 108. 48. 47,35 108. 48. 47,11	B. B. B. B. B. B. B. B. B. B. B. B. B. B.		

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Very faint, but the observation was not doubtful. No other object was seen. (b) Negative correction for Runs. (c) Extremely faint, but admitting of bisection. (d) 'The north-preceding and brighter.' (e) 'The south following.' (f) 'Good.' (g) 'The preceding of two equal and of the same N.P.D.' The other is Bessel xxiii. 897. (h) 'Alone.' (i) Very faint. (k) The mercury too much disturbed for the reflection observation. (l) Faint, but observed satisfactorily. (m) Faint from cloud. (n) 'The north-following of two.' The other is Bessel xxii. 747. (o) Very faint from haze. (p) Unsteady.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"					Inch.	"	"			
Nov. 24	(a) α Ceti R.	0.28,9	30,7	31,0	25,3	24,0	31,6		10,068		130. 0. 27,30	29,300	38,5	32,0	67,41	86. 30. 8,49	B.
	(b) α Ceti.	4.17,5	21,2	20,6	15,1	15,6	23,0		10,068		47. 24. 17,21				67,41	86. 30. 12,24	B.
Nov. 26	Zenith Point.	3. 3,1	5,3	11,0	4,6	0,8	6,7	+9,7	12,199		178. 42. 20,38						B.
Nov. 28	Neptune.	2. 39,0	40,9	42,1	36,3	36,0	41,9	+8,6			62. 17. 40,13	29,916	35,5	27,7	122,48	101. 24. 30,23	B.
	(c) B.A.C. 7951. <i>nf.</i> ..	3. 54,8	57,0	62,4	53,6	56,5	58,6				55. 53. 58,27				94,54	95. 0. 20,43	B.
	(d) H. C. 44694.	2. 5,7	8,8	11,3	4,1	5,5	9,4				65. 32. 8,07				141,92	104. 39. 17,61	B.
	B.A.C. 7993.	0.12,9	15,5	16,3	10,6	11,4	18,0				56. 30. 14,18				96,76	95. 36. 38,56	B.
	(b) Bessel xxii. 1120..	4. 31,2	36,1	34,3	28,8	31,0	36,7				61. 14. 32,87				117,09	100. 21. 17,58	B.
	Bessel xxii. 1211..	1. 44,2	46,1	50,0	41,2	44,3	47,9				56. 51. 46,12		27,2		98,21	95. 58. 11,95	B.
	(e) Bessel xxiii. 69..	2. 13,9	16,2	19,6	13,0	12,4	18,3				62. 2. 16,20				121,26	101. 9. 5,08	B.
	H. C. 46612.	0.45,6	48,3	49,3	44,0	44,0	50,9				55. 15. 47,23	29,906	33,8	26,4	92,51	94. 22. 7,36	B.
	22 Piscium.	3. 8,0	9,4	15,3	6,0	8,5	12,4				48. 48. 10,83				73,14	87. 54. 11,59	B.
	Bessel xxiii. 1013.	2. 15,8	18,1	20,4	13,4	14,2	20,5				54. 42. 17,72				90,59	93. 48. 35,93	B.
	Bessel xxiii. 1111.	1. 44,4	45,9	50,6	41,7	42,8	49,6				51. 56. 46,33				81,84	91. 2. 55,79	B.
	Bessel xxiii. 1218.	2. 21,7	23,6	25,9	20,7	20,1	27,4				49. 52. 23,90				75,97	88. 58. 27,49	B.
	Bessel o. 496.	3. 54,5	54,3	61,7	53,0	53,1	60,0				46. 18. 57,22	29,908	33,1	25,8	67,11	85. 24. 51,95	B.
	(f) β Ceti R.	1. 27,3	30,3	32,5	25,9	22,7	31,9		3,863		107. 43. 36,88				176,29	108. 48. 47,79	B.
	β Ceti.	3. 51,1	53,1	57,7	50,0	50,5	56,1		3,863	+1	69. 41. 2,16				176,29	108. 48. 46,07	B.
	Bessel o. 928.	2. 34,2	36,0	39,5	31,7	32,0	39,0			-2	46. 52. 36,17				68,44	85. 58. 32,23	B.
Nov. 29	Bessel xxii. 259..	4. 18,0	19,3	24,7	17,1	18,5	22,9				60. 24. 21,32	29,901	35,5	34,2	111,44	99. 31. 0,38	B.
	Bessel xxiii. 22..	1. 15,3	19,3	19,2	15,5	14,4	21,0			+2	59. 46. 17,70			32,7	108,92	98. 52. 54,24	B.
	ψ^1 Aquarii.	2. 34,0	37,5	40,1	32,5	34,3	38,7				60. 47. 36,92				113,62	99. 54. 18,16	B.
	(g) Bessel xxiii. 302.	3. 43,4	46,3	51,0	43,0	44,5	48,7				56. 3. 47,22				94,08	95. 10. 8,92	B.
	Bessel xxiii. 399.	0.13,6	17,2	16,8	12,0	11,4	19,2				49. 50. 15,10				74,85	88. 56. 17,57	B.
	(h) Bessel xxiii. 1013.	2. 23,3	26,0	27,8	21,4	22,0	27,8				54. 42. 25,40	29,909	35,6	32,6	89,42	93. 48. 42,44	B.
	Bessel xxiii. 1111.	1. 44,4	47,5	49,6	43,2	43,7	49,9				51. 56. 46,88				80,78	91. 2. 55,28	B.
	(i) Bessel xxiii. 1218.	2. 26,0	28,4	30,5	24,2	23,6	30,3				49. 52. 27,87				74,99	88. 58. 30,48	B.
	(k) Bessel o. 100.	3. 59,0	60,5	65,5	57,5	58,2	63,4			+2	45. 39. 1,88				64,63	84. 44. 54,13	B.
Dec. 1	(l) Neptune.	1. 54,9	58,5	58,6	52,6	53,5	59,8	+13,3			62. 16. 57,18	30,030	40,0	35,6	120,84	101. 23. 45,42	B.
Dec. 4	Neptune.	1. 15,5	18,2	19,6	12,4	13,9	20,2				62. 16. 17,18	29,450	32,2	32,6	119,21	101. 23. 3,79	B.
	Bessel o. 397.	3. 24,9	24,0	29,9	20,5	22,4	27,3				47. 58. 26,35	29,458	34,9	30,8	69,32	87. 4. 23,07	B.
	Bessel o. 496.	3. 57,2	57,5	64,0	54,2	56,4	62,4				46. 19. 0,38				65,41	85. 24. 53,19	B.
	(m) Bessel o. 590.	2. 35,8	37,0	41,5	33,0	33,6	40,1				42. 32. 37,98				57,34	81. 38. 22,72	B.
	(n) Bessel o. 678.	1. 52,0	53,4	56,9	49,0	49,6	56,7				49. 21. 53,77				72,81	88. 27. 53,98	B.
	Bessel o. 851.	4. 10,5	12,2	19,8	9,3	9,8	16,8			+3	42. 29. 15,12				57,23	81. 34. 59,75	B.
	Bessel o. 928.	2. 38,2	39,2	43,9	33,6	35,9	42,2				46. 52. 40,02		30,3		66,77	85. 58. 34,19	B.
	Bessel i. 25.	3. 46,5	46,8	52,7	42,6	45,3	50,1				49. 8. 49,02				72,33	88. 14. 48,75	B.
	88 Piscium.	2. 9,1	11,3	15,0	5,6	7,0	16,2				44. 42. 11,67				61,89	83. 48. 0,96	B.
	Bessel i. 162.	2. 20,7	20,8	25,4	16,3	17,8	24,5			+1	47. 2. 21,96				67,15	86. 8. 16,51	B.
	Bessel i. 245.	0. 3,3	6,0	8,1	0,0	1,3	8,3				42. 30. 4,53				57,32	81. 35. 49,25	B.
	Bessel i. 328.	3. 14,5	15,0	21,2	10,4	11,8	19,0				44. 43. 16,77				61,93	83. 49. 6,10	B.
	Bessel i. 391.	2. 16,4	18,3	21,8	11,8	13,4	20,8				45. 42. 18,10				64,09	84. 48. 9,59	B.
	Zenith Point.	2. 19,2	21,6	26,5	18,7	18,3	23,5		10,084		178. 42. 20,60						B.
Dec. 6	(o) Neptune.	0. 41,0	45,5	44,5	40,0	41,7	45,9			+3	62. 15. 43,16	29,749	42,0	40,6	118,35	101. 22. 28,91	B.
	(p) Metis.	2. 21,2	22,6	26,2	18,0	21,7	24,5				66. 2. 23,42				140,68	105. 9. 31,50	B.
	(q) Bessel xxiii. 654..	1. 3,6	9,8	9,5	3,3	5,6	11,4			+1	57. 11. 7,67	29,764	42,3	40,8	96,15	96. 17. 31,22	B.
	(r) Bessel xxiii. 1006.	0. 40,4	45,0	44,3	39,3	40,6	46,2				47. 0. 42,95				66,30	86. 6. 36,65	B.
	29 Piscium.	0. 30,0	34,0	31,8	27,8	30,1	34,8				54. 45. 31,65				87,64	93. 51. 46,69	B.
	Bessel xxiii. 1176.	2. 20,2	23,5	25,0	18,3	19,6	25,0			+2	52. 47. 22,95				81,48	91. 53. 31,83	B.
	Bessel o. 851.	4. 13,0	15,9	20,8	12,5	14,0	17,2				42. 29. 17,45				56,69	81. 35. 1,54	B.
	Bessel i. 328.	3. 14,4	17,8	20,0	12,3	13,2	20,8			+2	44. 43. 17,93				61,28	83. 49. 6,61	B.
	Bessel i. 410.	1. 25,6	28,9	29,9	23,5	23,8	31,3				41. 41. 27,82				55,14	80. 47. 10,36	B.
	(s) Astræa.	1. 14,8	19,6	19,7	12,7	14,1	20,7				43. 6. 17,50	29,776	41,2	39,0	58,09	82. 12. 2,99	B.

ONE REVOLUTION of the MICROMETER = 20'',862. ONE INTERVAL from the middle wire for an Equatorial Star = 16'',6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8'',00.

(a) Unsteady. (b) Negative correction for Runs. (c) The sky was covered with dense haze. (d) Disappearing at intervals. (e) Very faint from haze. (f) 'Good.' (g) Very faint from cloud. (h) Mist. (i) Faint. (k) 'Blaetion doubtful.' (l) Extremely faint from mist and cloud. (m) 'Doubtful observation.' (n) Haze. (o) Deposition of moisture on the glasses of the microscope made the circle-divisions almost invisible. (p) Doubtful blaetion on account of the faintness of the object and moisture on the eye-glass. (q) Very faint. (r) The microscope dripping with moisture. (s) Very faint, the observer not being able to free the eye-piece from moisture.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
Dec. 8	(a) Aldebaran R.	1. 58,2	61,4	63,3	56,9	56,0	62,4		9,294	+1½	142. 42. 15,21	29,620	40,2	35,0	43,26	73. 47. 56,65	B.
	Aldebaran.	2. 6,8	9,4	11,3	5,4	3,7	11,4		9,294	+4	34. 42. 24,38				43,26	73. 47. 55,04	B.
Dec. 17	(b) Bessel o. 662.	3. 32,4	34,5	37,3	32,2	30,5	34,0	+9,1			51. 8. 34,57	29,728	46,3	45,8	75,87	90. 14. 39,74	B.
	β Arietis R.	4. 6,4	6,8	13,7	4,2	5,1	8,7		9,214	-2	146. 34. 24,91	29,767	45,7	43,7	36,91	69. 55. 38,70	B.
	β Arietis.	4. 55,3	55,5	62,9	53,6	54,6	57,2		9,214		30. 50. 14,41				36,91	69. 55. 40,62	B.
	Bessel II. 211.	4. 39,2	39,8	46,3	36,8	39,4	41,3				36. 4. 41,88				44,88	75. 10. 16,06	B.
	B.A.C. 750.	1. 15,3	17,9	19,9	12,6	13,5	16,9				40. 56. 16,40				53,32	80. 1. 59,02	B.
	26 Arietis.	3. 23,6	24,3	28,9	19,9	21,6	26,5				31. 43. 25,17				38,19	70. 48. 52,66	B.
	H. C. 4881.	0. 3,4	7,1	6,7	0,8	1,7	6,8				31. 50. 4,43				38,35	70. 55. 32,08	B.
	B.A.C. 845.	0. 42,5	45,1	46,8	38,9	40,0	43,9				41. 25. 43,08				54,25	80. 31. 26,63	B.
	(c) Astræa.	3. 43,8	46,3	48,9	40,3	43,4	45,4			+2	43. 3. 45,83	29,780	44,8	43,3	57,50	82. 9. 32,63	B.
	Bessel II. 995.	3. 16,0	17,6	21,8	13,0	13,4	18,7				35. 38. 17,91				44,23	74. 43. 51,44	B.
	(d) β Tauri R.	3. 15,6	16,6	22,0	12,5	12,4	17,0		10,009	+1	154. 58. 16,73	29,791	44,2	43,0	25,90	61. 31. 35,87	B.
	β Tauri.	1. 18,0	18,6	23,0	12,2	14,4	18,7		10,009	+4	22. 26. 19,00				25,90	61. 31. 34,20	B.
Dec. 19	Bessel o. 477.	0. 62,0	64,0	65,5	59,1	59,4	65,5				47. 26. 2,90	30,162	43,2	38,3	68,55	86. 32. 0,75	B.
	Bessel o. 608.	0. 57,5	60,0	61,9	53,9	54,9	59,9				47. 55. 58,32				69,76	87. 1. 57,38	B.
Dec. 20	Bessel XXIII. 165. .	2. 33,6	35,1	37,9	31,1	29,4	35,3				53. 32. 34,52	30,228	40,5	36,4	85,86	92. 38. 49,68	B.
	Bessel XXIII. 300. .	2. 11,3	11,2	15,5	7,3	6,6	12,0				52. 52. 11,33				83,76	91. 58. 24,39	B.
	Bessel XXIII. 374. .	3. 37,9	37,8	44,1	34,2	34,4	38,3				52. 13. 38,88				81,82	91. 19. 50,00	B.
	Bessel XXIII. 459. .	0. 50,8	53,2	54,8	47,7	46,9	53,7				50. 50. 51,45				77,84	89. 56. 58,59	B.
	B.A.C. 471.	3. 56,8	57,3	64,4	54,6	55,8	59,0				43. 23. 59,17	30,240	39,2	35,7	60,02	82. 29. 48,49	B.
	Zenith Point R. . .	2. 10,1	12,3	17,7	9,5	8,4	13,1	+9,8	9,706		178. 42. 18,70						B.
Dec. 24	Zenith Point R. . .	2. 15,8	18,2	22,8	15,3	13,9	19,0	+10,5	9,963		178. 42. 19,07						B.
Dec. 27	Bessel II. 474.	3. 40,6	41,8	47,1	35,8	41,0	43,6	+10,1	9,966		37. 53. 43,61	29,344	34,4	31,5	48,44	76. 59. 21,00	T.
	μ Arietis.	2. 26,3	27,2	31,0	23,2	24,4	29,1				31. 32. 27,68				38,36	70. 37. 54,99	T.
	(e) H. C. 5157.	4. 51,1	55,5	55,2	50,0	49,1	55,1				34. 19. 52,62				42,59	73. 25. 24,16	T.
	Astræa.	2. 58,4	60,7	67,4	54,9	59,0	61,0				42. 43. 1,25				57,38	81. 48. 47,58	T.
	Rigel.	1. 19,2	22,6	25,8	18,1	19,0	22,9				59. 16. 21,72	29,344	32,6	30,0	105,31	98. 22. 55,98	T.
Dec. 29	(f) Astræa.	4. 54,0	58,6	59,0	51,4	54,7	59,0			+1	42. 34. 57,80	29,595	32,6	33,5	57,36	81. 40. 44,11	T.
	(g) δ Persei R.	3. 14,0	14,0	22,5	12,4	11,2	17,1		11,565	-½	173. 47. 43,61	29,609	32,7	33,6	5,13	42. 41. 48,57	T.
	ζ Persei R.	1. 14,0	16,1	20,4	12,9	14,0	19,7		11,324		157. 55. 49,00				22,66	58. 34. 0,71	T.
	(h) ζ Persei.	4. 13,6	13,1	25,9	8,9	14,4	17,0		11,324		19. 28. 49,30				22,66	58. 34. 0,91	T.
Dec. 31	Zenith Point.	2. 27,1	29,2	36,0	26,2	27,3	32,8	+11,1	10,558		178. 42. 19,05						T.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Diffused. (b) Continuous cloudy weather from Dec. 8 to Dec. 17. (c) Extremely faint and difficult to bisect. (d) Strong wind.
 (e) Negative correction for Runs. (f) Became visible just before passing the 4th wire: no other object was seen. (g) The direct observation was prevented by a board in the way, which happened at the time to cross the shutter opening. (h) The reading of Microscope D appears discordant: it should probably be 18",9.

MEAN NORTH POLAR DISTANCES OF THE STARS

OBSERVED IN THE YEAR 1849,

AS DEDUCED FROM EACH DAY'S OBSERVATION,

WITH

THE CORRECTIONS APPLIED TO

THE APPARENT NORTH POLAR DISTANCES.

Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.
	"	0 ' "		"	0 ' "		"	0 ' "		"	0 ' "
α Andromedæ.			β Ceti R.			Polaris SP.			Bessel II. 211.		
Nov. 16	+ 25,23	61 . 44 . 34,48	Oct. 9	+ 16,83	108 . 48 . 57,28	Oct. 15	+ 12,39	1 . 29 . 44,72	Dec. 17	+ 12,92	75 . 10 . 23,98
α Andromedæ R.			Nov. 24	+ 10,64	57,99	Polaris SP. R.			B.A.C. 750.		
			28	+ 10,13	57,92						
			Bessel o. 662.			Oct. 15			Dec. 17		
						+ 12,39			+ 11,23		
						1 . 29 . 46,31			80 . 2 . 10,25		
			Dec. 17			88 Piscium.			26 Arietis.		
						Dec. 4			Dec. 17		
						+ 15,69			+ 13,35		
						83 . 48 . 16,65			70 . 49 . 6,01		
						Bessel I. 162.			Bessel II. 474.		
						Dec. 4			Dec. 27		
						+ 14,78			+ 10,85		
						86 . 8 . 31,29			76 . 59 . 31,85		
						Bessel I. 245.			H. C. 4881.		
						Dec. 4			Dec. 17		
						+ 15,83			+ 12,63		
						81 . 36 . 5,08			70 . 55 . 44,71		
						Bessel I. 328.			μ Arietis.		
						Dec. 4			Dec. 27		
						+ 14,94			+ 12,23		
						83 . 49 . 21,04			70 . 38 . 7,22		
						+ 14,82					
						83 . 49 . 21,43					
						Bessel I. 391.			B.A.C. 845.		
						Dec. 4			Dec. 17		
						+ 14,46			+ 9,64		
						84 . 48 . 24,05			80 . 31 . 36,27		
						Bessel I. 410.			H. C. 5157.		
						Dec. 6			Dec. 27		
						+ 15,41			+ 10,98		
						80 . 47 . 25,77			73 . 25 . 35,14		
						B.A.C. 471.			Bessel II. 866.		
						Dec. 20			Oct. 27		
						+ 13,94			+ 10,77		
						82 . 30 . 2,43			96 . 51 . 57,25		
						β Arietis.			α Ceti.		
						Nov. 16			Nov. 24		
						+ 16,20			+ 8,43		
						69 . 55 . 57,70			86 . 30 . 20,67		
						+ 16,55					
						57,17					
						β Arietis R.			α Ceti R.		
						Nov. 16			Nov. 24		
						+ 16,20			+ 8,43		
						69 . 55 . 55,63			86 . 30 . (16,92)		
						+ 16,55					
						55,25					
						α Arietis.			Bessel II. 995.		
						Oct. 11			Dec. 17		
						+ 12,24			+ 9,36		
						67 . 15 . 14,91			74 . 44 . 0,80		
						+ 14,09					
						13,87					
						+ 15,35					
						67 . 15 . 13,90					
						α Arietis R.			Bessel III. 278.		
						Feb. 10			Feb. 10		
						- 15,32			- 15,32		
						98 . 19 . 33,99			98 . 19 . 33,99		
						Oct. 27			Oct. 27		
						+ 9,43			+ 9,43		
						35,15			35,15		
						Nov. 6			Nov. 6		
						+ 8,26			+ 8,26		
						34,40			34,40		
						16			16		
						+ 6,92			+ 6,92		
						36,18			36,18		

Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.
	"	0 / "		"	0 / "		"	0 / "		"	0 / "
Bessel III. 442.			Aldebaran R.			m Tauri.			Rumker 1445.		
Feb. 10	- 15,58	93.21.21,58	Dec. 8	+ 0,85	73.47.57,50	Feb. 16	- 8,92	71.33.44,79	Feb. 10	- 7,94	66.54.38,69
Oct. 27	+ 9,00	22,02							16	- 7,91	38,26
Nov. 10	+ 7,26	20,76	Groombridge 851.			* R. 4 ^h . 58 ^m . 48 ^s .			119 Tauri.		
16	+ 6,45	21,59	Feb. 15	- 0,21	48.11.29,33	Feb. 10	- 0,29	44.27.7,56	Feb. 15	- 10,55	71.31.21,23
δ Persei R.						17	+ 0,03	8,58			
Dec. 29	+ 12,79	42.42.1,36	H. C. 8705.			H. C. 9656.			ε Orionis.		
40 Persei.			Feb. 10	- 7,44	69.37.22,20	Feb. 17	- 0,05	44.32.12,45	Feb. 10	- 15,38	91.18.10,46
Feb. 10	- 1,34	56.31.23,39	H. C. 8798.			Bessel v. 11.			Bessel v. 802.		
Nov. 10	+ 5,45	23,84	Jan. 23	- 7,23	69.23.8,71	Feb. 16	- 10,55	76.11.59,07	Feb. 26	- 13,46	82.46.22,17
* R. 3 ^h . 36 ^m . 24 ^s .			Feb. 10	- 7,45	7,90	Bessel v. 12.			B.A.C. 1801.		
Feb. 10	- 1,01	55.15.35,66	* R. 4 ^h . 32 ^m . 29 ^s .			Feb. 16	- 10,56	76.12.28,32	Feb. 16	- 8,19	66.52.20,60
Nov. 10	+ 4,97	37,91	Feb. 15	- 7,65	69.41.31,49	108 Tauri.			* R. 5 ^h . 34 ^m . 47 ^s .		
ζ Persei.			17	- 7,70	32,20	Feb. 17	- 7,86	67.53.35,32	Feb. 26	- 13,39	82.25.30,30
Dec. 29	+ 8,15	58.34.9,06	H. C. 9058.			Rigel.			H. C. 10816.		
ζ Persei R.			Jan. 23	- 1,38	46.26.44,91	Jan. 31	- 16,33	98.22.46,56	Feb. 17	- 13,06	82.5.51,57
Dec. 29	+ 8,15	58.34.8,86	Feb. 10	- 0,27	45,83	Dec. 27	- 6,23	49,75	Bessel v. 1204.		
			17	- 0,07	45,90	n Tauri.			Feb. 8	- 18,53	104.9.45,61
Bessel III. 924.			H. C. 9228.			Feb. 16	- 8,02	68.3.51,69	16	- 19,33	44,78
Feb. 10	- 16,62	99.58.7,34	Jan. 23	- 7,49	68.40.23,89	* R. 5 ^h . 11 ^m . 38 ^s .			17	- 19,41	43,72
Bessel III. 965.			Feb. 10	- 7,60	21,58	Feb. 10	- 7,81	67.19.51,04	η Leporis.		
Feb. 10	- 16,74	100.11.34,23	15	- 7,65	21,24	15	- 7,80	51,34	Feb. 16	- 19,33	104.11.56,61
15	- 16,93	35,88	16	- 7,68	22,09	17	- 7,81	50,41	19	- 19,57	56,60
17	- 17,00	36,47	17	- 7,68	22,65	β Tauri.			Bessel v. 1284.		
ω [*] Tauri.			Jan. 23	- 9,59	75.50.57,59	Dec. 17	- 3,80	61.31.30,40	Feb. 22	- 13,41	82.9.36,21
Jan. 31	- 6,71	69.47.52,60	Feb. 15	- 10,21	54,09	β Tauri R.			26	- 13,49	37,83
H. C. 8336.			16	- 10,23	55,15	Dec. 17	- 3,80	61.31.32,07	Rumker 1654.		
Jan. 23	- 7,12	71.13.24,64	Bessel IV. 1199.			* R. 5 ^h . 18 ^m . 10 ^s .			Feb. 15	- 8,45	66.18.23,04
H. C. 8479.			Feb. 10	- 10,27	76.18.33,49	Feb. 10	- 7,90	67.1.42,09	17	- 8,42	22,30
Jan. 23	- 16,16	101.23.31,55	15	- 10,41	35,13	15	- 7,86	41,36	Rumker 1656.		
Feb. 17	- 17,28	34,44	17	- 10,45	34,78	H. C. 10208.			Feb. 15	- 8,44	66.16.17,18
Aldebaran.			i Tauri.			Feb. 16	- 8,00	67.23.14,16			
Dec. 8	+ 0,85	73.47.55,89	Jan. 23	- 7,70	68.37.47,74	17	- 7,99	14,13			
			Rumker 1382.								
			Jan. 23	- 9,82	76.7.7,23						

Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.
	"	"		"	"		"	"		"	"
χ^3 Orionis.			* \mathcal{R} . 6 ^h . 17 ^m . 48 ^s .			Bessel vi. 1041.			B.A.C. 2283.		
Feb. 8	-9,76	70.18.43,27	Feb. 15	-9,00	66.10.58,25	Feb. 22	-15,03	86.36.41,60	Feb. 22	-9,51	66.21.17,57
19	-9,69	42,67	17	-8,96	59,37	27	-15,20	41,86	27	-9,33	16,88
22	-9,67	41,45	19	-8,90	60,22	Mar. 3	-15,31	43,39	Mar. 3	-9,17	17,02
H. C. 11457.			26	-8,71	58,55	H. C. 12887.			5	-9,12	16,69
Feb. 26	-13,12	80.50.32,01	Mar. 3	-8,59	58,11	ω Geminorum.			10	-8,96	18,74
Bessel v. 1460.			Bessel vi. 544.			Feb. 19	-15,02	86.59.25,76	* \mathcal{R} . 6 ^h . 53 ^m . 45 ^s .		
Feb. 8	-13,22	82.52.2,24	Feb. 16	-19,14	104.25.22,99	26	-15,28	25,26	Mar. 21	-8,37	65.34.27,28
15	-13,49	2,21	22	-19,71	23,86	Mar. 5	-15,49	21,59	ζ Geminorum.		
16	-13,52	0,36	Mar. 3	-20,37	24,32	* \mathcal{R} . 6 ^h . 36 ^m . 24 ^s .			Feb. 26	-9,25	65.51.20,24
19	-13,61	1,96	5	-20,48	24,75	Feb. 15	-9,29	65.43.18,58	Mar. 8	-8,89	22,20
5 Geminorum.			H. C. 12358.			17	-9,22	17,29	17	-8,58	22,48
Feb. 22	-8,30	65.33.5,27	Feb. 15	-10,03	69.40.10,60	19	-9,15	18,60	ζ Geminorum R.		
26	-8,21	6,36	ν Geminorum.			* \mathcal{R} . 6 ^h . 37 ^m . 17 ^s .			Feb. 10	-10,67	69.12.43,72
Mar. 3	-8,13	6,10	Feb. 15	-10,04	69.41.48,37	Feb. 15	-9,32	65.45.26,76	* \mathcal{R} . 6 ^h . 56 ^m . 2 ^s .		
68 Orionis.			B.A.C. 2118.			16	-9,28	24,16	Feb. 22	-9,52	66.2.59,99
Feb. 15	-9,85	70.10.49,16	Feb. 8	-13,93	84.57.17,67	17	-9,24	24,22	Mar. 3	-9,16	60,74
16	-9,84	49,24	16	-14,31	16,56	19	-9,18	25,81	5	-9,09	63,47
B.A.C. 1994.			19	-14,42	16,51	11 Canis Majoris.			* \mathcal{R} . 6 ^h . 56 ^m . 4 ^s .		
Feb. 19	-17,54	96.31.11,66	26	-14,65	16,17	Mar. 5	-20,31	104.16.3,32	Feb. 26	-9,37	66.4.32,16
8 Geminorum.			Bessel vi. 809.			Bessel vi. 1351.			27	-9,32	29,95
Feb. 22	-8,53	65.59.9,68	Feb. 16	-19,10	104.42.13,60	Feb. 8	-17,74	104.34.5,38	* \mathcal{R} . 6 ^h . 58 ^m . 4 ^s .		
26	-8,46	10,09	17	-19,20	12,73	16	-18,78	6,36	Mar. 5	-9,06	65.52.16,12
Mar. 3	-8,35	10,44	22	-19,70	12,46	26	-19,81	7,91	8	-8,94	14,99
5	-8,33	8,81	Mar. 3	-20,40	15,06	27	-19,91	9,11	10	-8,86	16,86
B.A.C. 2042.			5	-20,52	14,77	H. C. 13279.			Piazzi VI. 328.		
Feb. 8	-9,06	66.10.27,78	Argelander 7143.			Feb. 10	-9,63	65.34.1,90	Feb. 10	-17,70	104.38.46,01
22	-8,71	27,03	Feb. 15	-1,99	38.24.23,97	15	-9,45	1,09	15	-18,38	45,13
26	-8,62	28,11	17	-1,72	22,26	17	-9,36	1,64	16	-18,51	46,08
Mar. 3	-9,68	26,74	22	-1,08	24,64	19	-9,29	2,29	17	-18,63	44,04
5	-8,49	27,89	Bessel vi. 990.			Argelander 7375.			19	-18,87	46,95
* \mathcal{R} . 6 ^h . 14 ^m . 2 ^s .			Feb. 8	-17,88	104.0.52,37	Mar. 3	-0,30	37.32.32,70	H. C. 13804.		
Feb. 15	-8,81	65.48.4,30	16	-18,85	50,38	5	-0,10	33,52	Feb. 26	-9,45	66.7.29,59
16	-8,78	4,32	26	-19,82	52,52	17	+0,89	32,34	27	-9,40	28,79
17	-8,75	3,57	Mar. 3	-20,18	52,49	H. C. 13313.			Mar. 3	-9,25	30,27
19	-8,70	5,68	H. C. 12821.			Feb. 22	-9,26	65.48.20,02	17	-8,74	30,97
H. C. 12217.			Mar. 10	-15,65	87.18.29,91	* \mathcal{R} . 6 ^h . 48 ^m . 4 ^s .					
Feb. 8	-9,16	66.12.46,20				Feb. 26	-9,17	65.52.10,15			
19	-8,87	46,67				Mar. 17	-8,54	11,45			
22	-8,78	46,90									
26	-8,69	46,76									

Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.
	"	0	"	"	0		"	0		"	0
ι Leonis.			κ Virginis.			Bessel xvi. 1023.			ρ Herculis R.		
Mar. 24	- 10,66	78.38.22,20	June 8	- 4,37	99.34.2,77	June 9	+ 5,17	98.42.59,27	July 10	+ 15,04	52.42.42,51
83 Leonis.			κ Virginis R.			ε Herculis.			H. C. 31752.		
Mar. 24	- 11,36	86.9.52,13	June 8	- 4,37	99.34.5,50	July 10 12	+ 14,28 + 14,71	58.50.49,12 49,36	July 21	+ 7,15	107.51.49,60
ο Virginis.			Arcturus.			ε Herculis R.			B.A.C. 5910.		
May 3 4	- 7,25 - 7,16	80.25.39,45 40,11	June 1 11	+ 1,53 + 3,01	70.1.43,16 42,01	July 10 12	+ 14,28 + 14,71	58.50.53,95 50,76	July 16	+ 10,51	90.55.59,14
Rumker 4364.			Arcturus R.			Bessel xvi. 1108.			B.A.C. 5918.		
Apr. 26 May 4	- 3,90 - 2,61	68.26.28,12 26,26	June 1 11	+ 1,53 + 3,01	70.1.44,87 45,45	June 9	+ 5,38	99.33.47,97	July 11 16	+ 16,77 + 18,11	31.13.14,61 14,79
Rumker 4378.			Bessel xiv. 259.			Bessel xvi. 1114.			H. C. 31954.		
June 1	- 3,20	86.50.44,21	June 8	- 4,25	101.21.49,65	June 9	+ 5,40	99.34.58,98	July 21	+ 7,50	108.6.35,37
84 Virginis.			Bessel xiv. 283.			Bessel xvii. 3.			B.A.C. 5948.		
June 1 8	- 2,66 - 2,02	85.41.45,36 44,38	June 11	- 4,32	102.15.2,63	July 10	+ 7,27	100.19.15,00	July 11 16	+ 9,40 + 8,13	105.28.21,52 24,23
η Ursæ Majoris.			B.A.C. 4772.			* R. 17 ^h . 3 ^m . 36 ^s .			H. C. 32065.		
June 8 11	+ 10,13 + 10,64	39.55.52,45 50,60	June 13	- 3,85	100.58.50,86	June 9	+ 5,59	101.26.51,22	July 21	+ 7,35	109.52.37,11
η Ursæ Majoris R.			B.A.C. 4787.			Bessel xvii. 48.			H. C. 32231.		
June 8 11	+ 10,13 + 10,64	39.55.53,13 53,30	June 13	- 4,13	102.40.37,42	June 9 July 11	+ 5,61 + 7,26	101.25.13,87 (19,73)	July 21	+ 7,60	110.1.23,40
H. C. 25637.			ε Bootis.			α Herculis.			* R. 17 ^h . 34 ^m . 21 ^s .		
Apr. 20 26 May 4 June 11	- 4,53 - 3,49 - 2,08 + 4,25	66.34.37,87 37,53 36,94 36,00	June 1	+ 4,47	62.17.9,34	June 8 July 10	+ 6,10 + 12,00	75.25.59,86 58,51	July 11 16	+ 16,48 + 17,85	31.7.10,45 7,28
* R. 13 ^h . 59 ^m . 20 ^s .			ε Bootis R.			α Herculis R.			B.A.C. 5989.		
Apr. 21 26	- 4,24 - 3,36	65.53.14,06 13,38	June 1	+ 4,47	62.17.11,08	June 8	+ 6,10	75.26.0,53	Aug. 6	+ 9,97	113.36.16,99
α Draconis.			α ² Libræ.			Bessel xvii. 133.			Σ 2217.		
June 1	+ 11,25	24.54.3,59	May 31	- 3,50	105.24.36,88	June 9 July 11	+ 5,82 + 7,22	102.55.41,87 42,22	July 11 16 31	+ 12,80 + 13,65 + 15,90	75.9.34,70 34,99 35,36
α Draconis R.			δ Ophiuchi.			B.A.C. 5885.			H. C. 32471.		
June 1	+ 11,25	24.54.2,64	June 2	+ 2,65	93.18.3,64	June 9 July 11	+ 6,34 + 7,44	104.59.27,94 29,03	July 21	+ 7,39	113.18.37,82
			δ Ophiuchi R.			ρ Herculis.			B.A.C. 6027.		
June 1	+ 11,25	24.54.2,64	June 2	+ 2,65	93.18.4,36	July 10	+ 15,04	52.42.41,57	Aug. 6	+ 7,36	112.52.4,21

Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.
	"	"		"	"		"	"		"	"
H. C. 32632.			H. C. 33058.			H. C. 33350.			H. C. 33709.		
July 21	+ 8,81	107.26.30,75	Aug. 13	+ 8,19	112.29.55,17	July 21	+ 9,43	110.26.59,10	July 21	+ 10,01	110.16.25,41
H. C. 32648.			γ^1 Sagittarii.			H. C. 33367.			H. C. 33729.		
Aug. 6	+ 8,32	109.50.51,10	July 31	+ 6,82	119.34.48,02	Aug. 4	+ 7,69	109.27.36,25	Aug. 6 13	+ 10,06 + 9,99	109.42.57,77 61,05
H. C. 32847.			H. C. 33111.			H. C. 33385.			B.A.C. 6220.		
July 21	+ 8,20	112.29.42,65	Aug. 4	+ 9,11	109.45.26,27	Aug. 6	+ 9,84	108.25.33,21	July 31	+ 8,29	118.29.32,39
Aug. 6	+ 7,95	47,73	B.A.C. 6125.			H. C. 33470.			H. C. 33767.		
H. C. 32855.			July 23	+ 8,93	111.27.10,47	Aug. 13	+ 9,97	108.25.16,75	Aug. 4	+ 9,52	112.21.37,39
Aug. 4	+ 7,80	113.17.39,52	H. C. 33171.			15 Sagittarii.			H. C. 33812.		
H. C. 32861.			Aug. 13	+ 8,74	111.12.40,84	July 23	+ 9,57	110.45.59,98	July 23	+ 10,69	106.59.27,34
Aug. 13	+ 8,56	110.2.28,16	B.A.C. 6127.			Aug. 4	+ 9,48	60,23	Aug. 3	+ 10,81	33,54
H. C. 32865.			July 31	+ 7,29	118.28.3,96	* \mathcal{R} . 18 ^h . 7 ^m . 6 ^s .			H. C. 33830.		
July 21	+ 8,24	112.26.49,93	H. C. 33203.			Aug. 3	+ 10,02	108.28.33,48	Aug. 13	+ 8,43	116.31.6,58
23	+ 8,22	49,37	July 21	+ 9,07	111.15.59,00	* \mathcal{R} . 18 ^h . 7 ^m . 45 ^s .			H. C. 33885.		
H. C. 32886.			Aug. 6	+ 8,90	59,80	Aug. 13	+ 9,96	108.51.0,93	July 21 31	+ 9,86 + 9,66	113.3.12,52 15,08
July 21	+ 8,27	112.31.49,44	B.A.C. 6141.			H. C. 33564.			H. C. 33894.		
ξ Draconis.			Aug. 4	+ 8,30	114.0.16,71	July 21	+ 9,99	109.0.43,96	July 12	+ 10,45	108.36.46,13
July 16	+ 17,33	33.6.7,58	72 Ophiuchi.			B.A.C. 6195.			Aug. 4	+ 10,56	45,24
ξ Draconis R.			July 12	+ 12,76	80.27.9,80	July 12	+ 10,01	108.30.37,89	H. C. 33974.		
July 16	+ 17,33	33.6.5,39	16	+ 13,37	12,62	16	+ 10,06	38,10	Aug. 3	+ 10,86	107.44.9,37
B.A.C. 6081.			72 Ophiuchi R.			Aug. 6	+ 10,43	39,11	B.A.C. 6266.		
July 31	+ 8,64	110.19.17,88	July 12	+ 12,76	80.27.14,39	H. C. 33591.			Aug. 13	+ 9,55	113.5.8,47
H. C. 32974.			16	+ 13,37	11,96	July 31	+ 9,33	112.23.27,74	B.A.C. 6267.		
July 23	+ 7,41	117.49.10,59	H. C. 33288.			H. C. 33604.			Aug. 4	+ 10,91	107.53.7,93
H. C. 33005.			July 23	+ 8,75	113.35.10,39	Aug. 4	+ 10,11	108.45.5,59	B.A.C. 6273.		
Aug. 4	+ 9,47	107.30.54,20	H. C. 33316.			H. C. 33627.			July 31	+ 9,47	115.20.45,22
H. C. 33017.			Aug. 13	+ 9,71	108.30.23,56	July 12	+ 10,06	103.31.32,90	H. C. 34117.		
Aug. 6	+ 8,22	112.36.40,06	B.A.C. 6161.			16	+ 10,10	34,16	July 21	+ 10,46	111.2.29,94
July 31	+ 8,62	113.43.31,54	* \mathcal{R} . 18 ^h . 10 ^m . 9 ^s .			July 23					

Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.
	"	<i>h. m. s.</i>		"	<i>h. m. s.</i>		"	<i>o. ' "</i>		"	<i>o. ' "</i>
H. C. 34157.			H. C. 34589.			β Lyræ.			γ Lyræ R.		
July 23	+ 10,44	111.37.19,63	Aug. 13	+ 11,82	107.12.29,83	June 13	+ 5,83	56.48.30,09	June 13	+ 5,66	57.31.51,87
Aug. 6	+ 10,23	16,70	Aug. 16	+ 11,81	31,23						
B.A.C. 6299.			H. C. 34621.			β Lyræ R.			H. C. 35497.		
Aug. 4	+ 10,84	109.13.28,62	Aug. 3	+ 11,89	107.8.56,55	June 13	+ 5,83	56.48.32,64	Aug. 3	+ 12,62	109.27.27,92
13	+ 10,77	29,11									
B.A.C. 6304.			H. C. 34619.			H. C. 35126.			H. C. 35499.		
Aug. 10	+ 9,66	114.12.52,47	Aug. 4	+ 11,22	110.26.57,93	Aug. 6	+ 11,96	110.6.44,38	Aug. 16	+ 12,50	109.18.55,96
			10	+ 11,13	55,21						
H. C. 34302.			H. C. 34690.			H. C. 35188.			B.A.C. 6502.		
Aug. 3	+ 10,30	107.38.41,16	Aug. 6	+ 11,18	111.7.3,13	July 23	+ 12,41	108.5.49,48	Aug. 4	+ 12,02	113.6.42,99
H. C. 34311.			ϕ Sagittarii.			B.A.C. 6448.			B.A.C. 6504.		
July 23	+ 10,51	112.39.17,31	Aug. 13	+ 9,63	117.8.22,47	Aug. 16	+ 11,10	113.21.33,73	July 21	+ 12,46	111.44.44,24
									Aug. 6	+ 12,24	47,85
H. C. 34336.			H. C. 34718.			H. C. 35207.			B.A.C. 6524.		
Aug. 4	+ 10,67	110.57.7,95	Aug. 3	+ 11,33	110.47.42,41	Aug. 3	+ 12,52	107.45.57,26	Aug. 3	+ 12,29	112.43.22,31
						4	+ 12,52	60,78	16	+ 11,91	23,99
H. C. 34339.			H. C. 34735.			B.A.C. 6474.			ζ Aquilæ.		
July 21	+ 11,36	107.5.46,37	Aug. 4	+ 11,27	117.29.36,05	Aug. 4	+ 10,79	118.14.61,66	Sept. 22	+ 22,33	76.21.25,31
						6	+ 10,69	58,53			
B.A.C. 6323.			B.A.C. 6376.			H. C. 35355.			ζ Aquilæ R.		
Aug. 13	+ 10,98	109.22.50,31	Aug. 16	+ 11,45	109.45.28,14	Aug. 16	+ 11,64	112.1.40,56	Sept. 22	+ 22,33	76.21.24,09
H. C. 34354.			H. C. 34884.			H. C. 35374.			B.A.C. 6533.		
Aug. 6	+ 11,17	108.39.49,27	Aug. 16	+ 11,83	108.45.44,04	Aug. 3	+ 12,58	108.38.5,52	Aug. 4	+ 11,96	114.53.8,61
H. C. 34428.			H. C. 34916.			H. C. 35411.			π Sagittarii.		
Aug. 8	+ 11,06	109.31.20,45	Aug. 3	+ 11,87	109.18.21,52	July 23	+ 12,75	107.25.12,76	Aug. 3	+ 12,69	111.15.27,67
									6	+ 12,64	29,28
H. C. 34433.			B.A.C. 6400.			ϵ Aquilæ.			H. C. 35843.		
Aug. 3	+ 11,13	109.32.44,70	Aug. 6	+ 11,13	113.0.50,21	Sept. 22	+ 22,48	75.7.58,31	Aug. 16	+ 11,76	114.25.28,76
B.A.C. 6347.			30 Sagittarii.			ϵ Aquilæ R.			H. C. 35867.		
Aug. 4	+ 10,86	111.10.14,68	Aug. 4	+ 11,35	112.19.43,56	Sept. 22	+ 22,48	75.7.57,86	July 21	+ 12,99	110.35.11,96
10	+ 10,76	14,22							Aug. 4	+ 12,89	15,19
H. C. 34532.			H. C. 35031.			γ Lyræ.			H. C. 35970.		
Aug. 6	+ 10,53	112.47.38,79	Aug. 16	+ 11,57	110.32.52,97	June 13	+ 5,66	57.30.47,90	Aug. 3	+ 13,14	109.43.53,01

Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.
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H. C. 36016.			χ^2 Sagittarii.			κ Aquilæ.			H. C. 38081.		
Aug. 6	+12,70	112.18.38,39	Aug. 4 Sept. 17	+13,09 +11,22	114.15.8,37 7,95	July 12	+14,18	97.21.31,13	Oct. 2	+13,03	111.15.47,93
B.A.C. 6576.			H. C. 36585.			H. C. 37202.			H. C. 38096.		
Aug. 4 16	+12,49 +12,02	114.25.50,98 49,98	Aug. 6	+13,61	110.50.19,14	July 21 Aug. 3 16	+14,61 +14,82 +14,81	107.14.49,58 53,70 52,94	Sept. 25	+13,72	110.15.54,71
H. C. 36152.			50 Sagittarii.			H. C. 37221.			H. C. 38113.		
Aug. 3	+13,02	111.45.24,01	July 21	+13,68	112.4.7,83	Sept. 17	+12,50	112.24.7,69	Oct. 8	+12,62	111.52.25,20
H. C. 36164.			H. C. 36666.			H. C. 37383.			H. C. 38250.		
July 21	+13,17	112.0.45,18	Aug. 13	+13,99	108.38.49,46	Aug. 16	+13,53	115.4.4,89	Sept. 17 25	+13,54 +13,12	112.36.28,87 27,95
B.A.C. 6587.			H. C. 36678.			H. C. 37420.			B.A.C. 6888.		
Aug. 4	+13,49	109.7.42,08	Aug. 16	+13,51	110.48.54,67	Aug. 3	+14,36	113.12.35,92	July 31	+15,18	117.14.0,72
H. C. 36214.			π Draconis.			H. C. 37433.			B.A.C. 6889.		
Aug. 16	+11,79	116.20.23,33	July 12	+11,87	24.34.34,67	Sept. 17	+12,56	112.53.59,28	Oct. 9	+12,77	111.44.4,01
ρ^1 Sagittarii.			π Draconis R.			H. C. 37549.			H. C. 38334.		
June 13 Aug. 3	+12,23 +13,84	108.7.33,92 31,71	July 12	+11,87	24.34.31,79	Aug. 16	+13,58	115.59.27,64	Oct. 2	+14,97	106.10.36,62
ρ^2 Sagittarii.			B.A.C. 6666.			H. C. 37662.			H. C. 38398.		
Aug. 4	+13,77	108.34.56,51	Aug. 3 6	+12,96 +12,81	117.17.21,64 19,64	Sept. 25	+12,35	113.9.10,44	Sept. 25	+14,08	110.0.10,21
H. C. 36403.			H. C. 36777.			H. C. 37769.			H. C. 38396.		
July 21	+13,66	109.24.3,91	July 21 Aug. 4	+14,04 +14,01	109.51.32,40 37,23	Sept. 17	+12,03	115.50.38,31	Oct. 8	+12,01	114.18.42,67
H. C. 36448.			H. C. 36857.			β Aquilæ.			B.A.C. 6907.		
Aug. 15	+13,63	109.15.45,15	Aug. 16	+13,94	109.41.52,54	Sept. 24	+21,36	83.57.59,10	July 31	+16,19	105.27.34,79
Piazzi XIX. 85.			H. C. 36947.			β Aquilæ R.			B.A.C. 6914.		
June 13	+10,16	93.59.57,91	Aug. 4	+14,29	109.10.42,64	Sept. 24	+21,36	83.57.59,22	Sept. 17 Oct. 2	+14,24 +13,49	111.1.36,02 35,80
H. C. 36516.			H. C. 36999.			H. C. 37959.			H. C. 38503.		
Aug. 16	+12,90	112.51.34,43	July 21 Aug. 3 Sept. 17	+14,33 +14,38 +13,36	109.5.22,21 23,21 23,53	Sept. 17	+14,46	108.47.0,90	Aug. 3	+16,05	108.46.58,69
χ^1 Sagittarii.			h^1 Sagittarii.			H. C. 38022.			ρ Draconis.		
Aug. 3	+13,05	114.47.43,90	Aug. 16	+13,08	115.2.38,52	July 31	+15,16	113.44.24,15	Sept. 24	+30,54	22.33.24,29

Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.
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ρ Draconis R.			H. C. 39172.			Bessel xx. 860.			H. C. 40197.		
Sept. 24	+ 30,54	22.33.23,35	Oct. 2	+ 15,20	107.29.36,19	Oct. 26	+ 15,58	104.26.9,50	Oct. 11	+ 15,97	106.4.6,48
* \mathcal{R} . 20 ^h . 3 ^m . 42 ^s .			Bessel xx. 464.			H. C. 39926.			H. C. 40257.		
Sept. 17	+ 13,53	113.53.8,13	Sept. 25	+ 16,67	104.2.7,34	Oct. 10	+ 14,79	109.7.40,42	Sept. 25	+ 15,64	110.12.17,90
H. C. 38618.			Oct. 9	+ 16,13	6,20	Bessel xx. 876.			H. C. 40260.		
			11	+ 16,04	7,23	Sept. 25			Oct. 2		
July 31	+ 15,75	115.14.58,90	H. C. 39350.			+ 17,06			110.5.30,42		
Aug. 3	+ 15,65	61,31	Oct. 2			104.20.7,81			H. C. 40311.		
Sept. 25	+ 12,59	57,06	Oct. 2			Bessel xx. 900.			Oct. 26		
H. C. 38705.			B.A.C. 7049.			Oct. 2			+ 13,98		
			Oct. 10			+ 16,35			109.40.46,68		
Oct. 8	+ 14,71	107.7.4,90	H. C. 39450.			9			Bessel xx. 1157.		
9	+ 14,67	2,42	Sept. 25			+ 16,02			Oct. 8		
H. C. 38740.			B.A.C. 7070.			105.43.30,65			10		
			Oct. 2			29,32			+ 16,55		
Oct. 2	+ 14,14	109.39.37,16	H. C. 39450.			α Cygni.			+ 16,47		
			Sept. 25			Sept. 26			104.59.11,59		
B.A.C. 6953.			Oct. 2			+ 29,54			11,45		
Sept. 25	+ 15,43	106.45.0,86	B.A.C. 7070.			α Cygni R.			19 Capricorni.		
H. C. 38863.			Oct. 2			Sept. 26			Oct. 11		
Sept. 17	+ 13,49	114.49.55,55	Bessel xx. 612.			+ 29,54			+ 15,29		
			Oct. 9			45.15.24,60			108.29.29,32		
H. C. 38932.			Bessel xx. 612.			Bessel xx. 950.			Bessel xx. 1203.		
			Oct. 9			Oct. 3			Oct. 18		
Oct. 9	+ 14,41	108.19.20,93	Bessel xx. 664.			+ 16,41			+ 16,47		
H. C. 38974.			H. C. 39603.			105.34.43,14			103.50.7,22		
Sept. 25	+ 12,78	115.40.46,46	Oct. 10			H. C. 40042.			H. C. 40440.		
			Oct. 10			Oct. 10			Oct. 8		
B.A.C. 6987.			Bessel xx. 696.			+ 14,69			+ 16,51		
Oct. 2	+ 14,18	110.6.55,97	H. C. 39742.			109.42.51,76			105.25.44,45		
β Capricorni.			Oct. 9			H. C. 40056.			H. C. 40465.		
			Oct. 10			Oct. 11			Oct. 10		
Sept. 17	+ 16,45	105.15.12,24	Bessel xx. 779.			+ 14,65			+ 14,21		
H. C. 39125.			H. C. 39901.			18			112.7.53,40		
			Oct. 2			+ 14,25			8 Aquarii.		
Oct. 9	+ 15,26	106.16.7,63	Oct. 2			109.40.58,00			Oct. 2		
H. C. 39148.			Bessel xx. 1068.			59,53			15		
Sept. 25	+ 16,41	104.30.1,45	Oct. 11			H. C. 40115.			+ 16,81		
			Oct. 11			Sept. 25			+ 16,66		
			Oct. 11			+ 15,63			7,67		
			Oct. 11			Oct. 2			H. C. 40622.		
			Oct. 11			+ 15,22			Oct. 8		
			Oct. 11			36,80			+ 13,94		
			Oct. 11			39,85			113.39.52,05		
			Oct. 11			35,01			9 Aquarii.		
			Oct. 11			H. C. 40125.			Oct. 3		
			Oct. 11			Oct. 9			+ 17,29		
			Oct. 11			+ 15,14			104.6.58,87		
			Oct. 11			108.45.11,32			Bessel xx. 1358.		
			Oct. 11			B.A.C. 7209.			Oct. 10		
			Oct. 11			Oct. 26			+ 17,60		
			Oct. 11			+ 14,27			102.2.50,66		
			Oct. 11			108.35.18,98					
			Oct. 11			Bessel xx. 1068.					
			Oct. 11			Oct. 10					
			Oct. 11			+ 16,63					
			Oct. 11			104.11.53,68					
			Oct. 11								

Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.
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Bessel xx. 1370.			H. C. 41149.			H. C. 41514.			Bessel xxi. 572.		
Sept. 25	+ 17,67	104.5.36,01	Oct. 15	+ 17,44	102.34.0,26	Oct. 8	+ 15,59	110.19.16,27	Oct. 8	+ 18,54	101.12.32,93
Bessel xx. 1419.			H. C. 41163.			Bessel xxi. 348.			Bessel xxi. 592.		
Oct. 2	+ 17,58	103.26.34,50	Nov. 6	+ 16,70	101.13.29,62	Oct. 18	+ 16,91	104.9.21,71	Oct. 18	+ 17,10	104.6.54,85
H. C. 40744.			ζ Cygni.			18 Aquarii.			Bessel xxi. 599.		
Oct. 15	+ 15,19	108.42.17,91	Oct. 11	+ 28,86	60.23.21,85	Oct. 3	+ 17,97	103.31.18,86	Oct. 10	+ 18,88	99.47.58,71
B.A.C. 7312.			ζ Cygni R.			Bessel xxi. 383.			Bessel xxi. 670.		
Oct. 8	+ 15,96	107.45.32,75	Oct. 11	+ 28,86	60.23.24,10	Oct. 10	+ 17,15	105.0.29,75	Oct. 15	+ 17,14	104.39.0,91
Bessel xx. 1450.			H. C. 41200.			Bessel xxi. 389.			Bessel xxi. 686.		
Oct. 10 26	+ 16,68 + 15,80	105.8.26,07 25,55	Oct. 18	+ 16,42	105.44.52,51	Oct. 11 Nov. 6	+ 17,36 + 15,80	104.8.23,99 22,07	Oct. 18	+ 17,79	102.5.7,31
Bessel xx. 1486.			B.A.C. 7378.			19 Aquarii.			Bessel xxi. 699.		
Sept. 25	+ 17,91	103.36.13,12	Oct. 2 3	+ 15,71 + 15,65	110.47.49,55 51,45	Oct. 15	+ 18,33	100.23.16,87	Oct. 10	+ 17,81	103.35.4,68
H. C. 40866.			Bessel xxi. 188.			Bessel xxi. 397.			Bessel xxi. 708.		
Oct. 2	+ 16,81	106.20.34,29	Oct. 15	+ 17,07	103.54.22,25	Oct. 2	+ 18,87	100.32.28,18	Oct. 8	+ 19,14	99.22.17,96
Bessel xx. 1501.			Bessel xxi. 194.			Bessel xxi. 416.			Bessel xxi. 752.		
Oct. 18	+ 16,75	103.47.47,68	Oct. 10	+ 17,31	104.2.45,29	Nov. 2 10	+ 16,03 + 15,53	104.13.15,42 15,94	Nov. 2	+ 17,29	101.0.23,06
H. C. 40877.			30 Capricorni.			B.A.C. 7459.			γ Capricorni.		
Nov. 6	+ 13,27	110.38.18,98	Nov. 10	+ 13,90	108.36.47,12	Oct. 8	+ 18,15	102.13.12,63	Oct. 15	+ 16,37	107.20.29,08
26 Capricorni.			Bessel xxi. 239.			B.A.C. 7463.			Bessel xxi. 796.		
Oct. 8 10	+ 15,10 + 14,95	110.47.59,81 60,85	Oct. 18	+ 17,00	103.40.50,66	Oct. 18	+ 15,16	109.48.12,08	Oct. 18	+ 18,56	99.49.26,87
ν Aquarii.			Bessel xxi. 265.			H. C. 41785.			Bessel xxi. 818.		
Sept. 25	+ 18,42	101.58.46,01	Nov. 6	+ 16,81	101.6.24,72	Oct. 10	+ 17,22	105.5.5,61	Oct. 8 10	+ 18,17 + 18,07	102.56.4,67 3,07
Bessel xxi. 26.			Bessel xxi. 294.			β Aquarii.			Bessel xxi. 861.		
Oct. 15 18	+ 17,46 + 17,31	102.20.24,78 24,69	Oct. 10	+ 16,84	105.47.33,50	Oct. 15	+ 19,76	96.13.56,19	Oct. 15 Nov. 2	+ 18,14 + 17,04	101.49.30,46 29,68
H. C. 41078.			Bessel xxi. 304.			Bessel xxi. 562.			Bessel xxi. 902.		
Oct. 2 10	+ 15,36 + 14,77	111.37.38,62 37,88	Oct. 11 15	+ 17,88 + 17,67	102.16.20,17 18,36	Oct. 8	+ 18,54	101.11.24,14	Oct. 18	+ 17,18	104.22.2,01

Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.
	"	0' "		"	0' "		"	0' "		"	0' "
Bessel xxi. 914.			Bessel xxi. 1300.			Bessel xxii. 164.			Bessel xxii. 548.		
Oct. 10	+17,80	104.1.55,60	Nov. 10	+15,95	103.44.49,07	Oct. 26	+16,74	104.47.39,48	Nov. 5	+18,99	95.39.43,45
H. C. 42407.			α Aquarii.			Bessel xxii. 167.			Bessel xxii. 575.		
Oct. 8	+16,60	108.36.44,64	Oct. 9 10	+21,48 +21,46	91.3.4,26 3,52	Nov. 10	+16,42	102.24.54,76	Oct. 15	+19,17	99.10.40,17
Bessel xxi. 943.			ι Aquarii.			Bessel xxii. 175.			Bessel xxii. 584.		
Oct. 15	+19,12	98.37.50,61	Oct. 18	+17,33	104.35.58,35	Nov. 10	+16,41	102.23.51,42	Oct. 18	+17,76	103.39.3,47
Bessel xxi. 950.			Bessel xxii. 1361.			Bessel xxii. 231.			Bessel xxii. 589.		
Nov. 2	+16,39	103.49.1,87	Oct. 8	+18,94	101.8.28,58	Oct. 26	+18,10	100.33.18,37	Nov. 6	+18,10	98.7.5,28
Bessel xxi. 995.			B.A.C. 7697.			Bessel xxii. 238.			Bessel xxii. 607.		
Oct. 8	+19,37	99.0.44,60	Oct. 8	+18,93	101.10.52,72	Oct. 18	+20,24	94.49.14,70	Oct. 26	+17,34	102.59.36,87
H. C. 42558.			Bessel xxi. 1401.			Bessel xxii. 259.			Bessel xxii. 612.		
Nov. 2	+18,10	98.53.47,06	Oct. 29	+18,37	99.1.41,98	Nov. 29	+16,08	99.31.16,46	Nov. 24	+16,08	100.10.23,68
Bessel xxi. 1023.			Bessel xxii. 22.			Bessel xxii. 266.			Bessel xxii. 629.		
Oct. 18	+18,38	100.44.29,72	Oct. 26	+19,16	97.7.51,81	Oct. 31	+18,68	97.43.21,77	Oct. 19 Nov. 5	+17,54 +16,17	104.9.7,21 7,57
Bessel xxi. 1025.			Bessel xxii. 49.			Bessel xxii. 267.			64 Aquarii.		
Nov. 10	+17,72	98.36.39,03	Oct. 18	+19,11	98.45.23,18	Oct. 29	+19,38	95.52.19,85	Oct. 29	+17,78	100.48.41,61
Bessel xxi. 1036.			Bessel xxii. 91.			Bessel xxii. 304.			Bessel xxii. 694.		
Oct. 26	+18,77	98.6.27,98	Oct. 26	+16,94	104.36.50,25	Nov. 10	+15,53	104.58.17,67	Nov. 6	+18,24	97.35.8,57
Bessel xxi. 1087.			ζ Cephei.			Bessel xxii. 467.			Bessel xxii. 700.		
Nov. 2 10	+17,02 +16,50	102.4.24,13 22,86	Sept. 26	+26,43	32.32.29,79	Oct. 31	+18,18	99.11.21,50	Oct. 26	+16,84	104.38.25,50
Bessel xxi. 1126.			ζ Cephei R.			H. C. 43946.			Bessel xxii. 708.		
Oct. 26	+16,62	104.44.53,96	Sept. 26	+26,43	32.32.28,51	Oct. 18	+17,28	105.20.17,31	Nov. 5	+16,53	103.0.58,24
B.A.C. 7640.			Bessel xxii. 130.			Bessel xxii. 506.			ζ Pegasi.		
Oct. 31	+15,90	105.50.21,16	Oct. 18	+19,58	97.8.49,15	Oct. 26 29	+18,26 +18,03	100.2.50,63 48,55	Sept. 25 Nov. 17	+22,60 +23,42	79.57.18,19 20,66
Bessel xxi. 1199.			Bessel xxii. 148.			Bessel xxii. 531.			ζ Pegasi R.		
Nov. 10	+15,40	105.13.39,12	Oct. 29	+19,23	96.24.45,84	Oct. 29	+18,06	99.59.14,35	Sept. 25	+22,60	79.57.18,43

Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.	Day of Observa- tion.	Correction to Mean N.P.D.	Mean N.P.D. Jan. 1, 1849.
	"	o . ' "		"	o . ' "		"	o . ' "		"	o . ' "
Bessel xxii. 748.			Bessel xxii. 885.			Bessel xxii. 1036.			Bessel xxii. 1258.		
Nov. 24	+14,98	103.7.17,23	Oct. 26	+17,64	101.51.50,57	Nov. 6	+19,23	93.57.26,44	Nov. 24	+15,60	99.37.41,83
H. C. 44443.			Bessel xxii. 910.			Bessel xxii. 1049.			Bessel xxii. 1269.		
Oct. 29	+18,87	97.10.41,02	Nov. 14	+16,72	100.7.20,84	Nov. 14	+17,88	96.29.33,40	Nov. 6	+19,95	91.6.41,29
Bessel xxii. 769.			Bessel xxii. 914.			Bessel xxii. 1057.			Bessel xxiii. 7.		
Oct. 29	+18,88	97.11.39,48	Nov. 24	+16,19	99.27.14,24	Nov. 14	+17,87	96.28.50,92	Nov. 14	+16,53	100.0.14,12
η Pegasi.			H. C. 44694.			Bessel xxii. 1083.			Bessel xxiii. 18.		
Oct. 8	+26,14	60.33.60,12	Nov. 28	+14,05	104.39.31,66	Oct. 29	+19,74	93.41.33,87	Nov. 5	+17,91	97.54.28,73
13	+26,80	59,66									
15	+27,05	59,73									
η Pegasi R.			ι Cephei.			Bessel xxii. 1120.			Bessel xxiii. 22.		
Oct. 8	+26,14	60.33.58,49	Oct. 9	+27,08	24.35.35,82	Nov. 6	+17,16	100.21.33,19	Nov. 29	+15,73	98.53.9,97
13	+26,80	60,52				28	+15,43	33,01			
15	+27,05	60,07	ι Cephei R.			H. C. 45028.			Bessel xxiii. 38.		
Bessel xxii. 771.			Oct. 9	+27,08	24.35.32,08	Nov. 5	+19,02	94.39.0,22	Nov. 24	+19,04	90.23.52,59
Nov. 6	+17,68	99.14.49,40	Bessel xxii. 935.			\ast R. 22 ^h .54 ^m .16 ^s .			H. C. 45395.		
Bessel xxii. 780.			Oct. 29	+16,79	103.53.57,95	Nov. 5	+19,02	94.39.38,22	Nov. 6	+18,76	94.45.25,60
Nov. 5	+17,72	99.17.48,97	Bessel xxii. 946.			Bessel xxii. 1185.			Bessel xxiii. 69.		
Bessel xxii. 797.			Nov. 5	+17,04	101.13.49,49	Oct. 29	+18,19	98.52.10,66	Nov. 28	+14,95	101.9.20,03
Oct. 26	+17,08	103.47.50,27	75 Aquarii.			Bessel xxii. 1196.			Bessel xxiii. 78.		
Bessel xxii. 822.			Nov. 6	+16,38	102.59.25,66	Nov. 14	+17,76	96.35.11,84	Oct. 29	+20,09	91.36.52,13
Nov. 24	+17,21	96.43.38,85	Bessel xxii. 981.			Bessel xxii. 1211.			Bessel xxiii. 84.		
B.A.C. 7951.			Oct. 26	+18,11	100.10.38,17	Nov. 28	+16,92	95.58.28,87	Nov. 14	+16,87	99.43.43,93
Nov. 6	+19,01	95.0.36,45	Bessel xxii. 998.			α Pegasi.			Bessel xxiii. 103.		
28	+17,51	37,94	Nov. 21	+15,84	100.54.56,10	Oct. 9	+23,47	75.36.23,32	Nov. 5	+17,29	99.44.35,68
Bessel xxii. 864.			Bessel xxii. 1007.			α Pegasi R.			14	+16,55	37,30
Oct. 29	+18,05	99.44.16,76	Oct. 29	+17,37	101.52.6,08	Oct. 9	+23,47	75.36.20,19	Bessel xxiii. 104.		
Bessel xxii. 870.			B.A.C. 7993.			h^4 Aquarii.			Nov. 5	+17,29	99.45.1,18
Nov. 5	+19,33	94.10.59,44	Nov. 5	+18,78	95.36.55,16	Oct. 29	+18,27	98.30.27,43	14	+16,55	4,31
Bessel xxii. 881.			28	+17,17	55,73				ψ^1 Aquarii.		
Nov. 21	+15,50	102.8.47,79							Nov. 24	+15,67	99.54.34,50
									29	+15,26	33,42

[illegible]

CATALOGUE
OF THE
CONCLUDED MEAN RIGHT ASCENSIONS
AND THE
CONCLUDED MEAN NORTH POLAR DISTANCES,
JANUARY 1, 1849,
OF THE STARS OBSERVED IN THE YEAR 1849;
WITH THE ANNUAL VARIATIONS.

CATALOGUE of the CONCLUDED MEAN RIGHT ASCENSIONS AND MEAN NORTH POLAR DISTANCES,
JAN. 1, 1849; with the ANNUAL VARIATIONS.

** The N.P.D. have been corrected for the Discordance of Zenith Points, and the Error of the Assumed
Co-latitude, in the manner explained in the Introduction.

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
1	α ANDROMEDÆ.....		32	0. 0. 35,51	+ 3,083	1	61. 44. 35,59	- 19,910	No. 5. The circumstances were unfavorable for the estimation of magnitude.
2	α Andromedæ R....					1	61. 44. 33,75		
3	H. C. 32.....	7	2	0. 3. 25,71	3,069		94. 10		
4	Bessel o. 64.....	7.8	2	0. 3. 50,15	3,069		93. 55		
5	Bessel o. 100.....	10		0. 6. 6		1	84. 45. 13,58	20,048	
6	Bessel o. 107.....	8.9	1	0. 6. 30,53	3,070		91. 24		
7	Bessel o. 109.....	7.8	3	0. 6. 41,02	3,069		93. 2		
8	H. C. 163.....	7	1	0. 6. 52,32	3,071		89. 33		
9	H. C. 245.....	8.9	2	0. 9. 21,79	3,068		92. 30		
10	Bessel o. 171.....	8	2	0. 10. 4,95	3,068		92. 42		
11	Bessel o. 179.....	7	1	0. 10. 23,60	3,074		87. 3		
12	Bessel o. 181.....	8	1	0. 10. 34,79	3,068		92. 51		
13	Bessel o. 195.....	8.9	1	0. 11. 32,63	3,070		90. 19		
14	Bessel o. 212.....	8	1	0. 12. 24,94	3,073		87. 48		
15	Bessel o. 246.....	8.9	1	0. 14. 7,33	3,069		90. 51		
16	Bessel o. 258.....	9	2	0. 14. 56,27	3,072		89. 1		
17	Bessel o. 281.....	7.8	1	0. 16. 16,89	3,063		94. 19		
18	B.A.C. 81.....	6.7	1	0. 16. 46,92	3,065		93. 3		
19	44 Piscium.....			0. 17. 40		1	88. 53. 49,59	19,995	
20	Bessel o. 312.....	7	1	0. 18. 31,36	3,076		87. 1		No. 40. Magnitude estimated under unfavorable circumstances.
21	Bessel o. 320.....	8	1	0. 19. 13,18	3,083		83. 43		
22	Bessel o. 368.....	8.9	1	0. 22. 6,75	3,068		91. 9		
23	11 Ceti.....	8	2	0. 22. 10,60	3,066		91. 57		
24	Bessel o. 397.....	8		0. 23. 57		1	87. 4. 40,85	19,945	
25	51 Piscium. <i>sp.</i>	6	1	0. 24. 36,68	3,086		83. 53		
26	Bessel o. 425.....	9	2	0. 25. 5,74	3,067		91. 18		
27	Bessel o. 440.....	8.9	1	0. 25. 55,71	3,061		93. 35		
28	Bessel o. 469.....	8.9	1	0. 27. 20,03	3,090		83. 7		
29	Bessel o. 477.....	7.8		0. 27. 43		1	86. 32. 17,46	19,908	
30	B.A.C. 147.....	6.7	1	0. 27. 47,98	3,067		91. 20		
31	Bessel o. 485.....	8.9	2	0. 28. 5,82	3,066		91. 44		
32	H. C. 898.....	8	1	0. 28. 15,74	3,089		83. 41		
33	Bessel o. 496.....	8		0. 29. 10		2	85. 25. 10,76	19,893	
34	H. C. 967.....	8	2	0. 30. 15,33	3,077		88. 4		
35	15 Ceti.....	6.7	1	0. 30. 21,53	3,066		91. 20		
36	δ Andromedæ.....			0. 31. 14		2	59. 57. 56,83	19,878	
37	δ Andromedæ R....					2	56,23		
38	B.A.C. 167.....	7.8	1	0. 31. 19,98	3,078		87. 43		No. 40. Magnitude estimated under unfavorable circumstances.
39	Bessel o. 561.....	8.9	2	0. 32. 50,17	3,062		92. 36		
40	Bessel o. 590.....	10		0. 34. 6		1	81. 38. 41,40	19,833	
41	Bessel o. 608.....	8		0. 34. 59		1	87. 2. 13,61	19,822	
42	H. C. 1146.....	8.9	1	0. 35. 38,59	3,077		88. 15		
43	β CETI.....		17	0. 36. 0,49	3,013	4	108. 48. 58,15	19,836	
44	β Ceti R.....					3	57,21		
45	Bessel o. 662.....	8	1	0. 38. 9,53	3,070	1	90. 14. 55,00	19,778	
46	Bessel o. 678.....	9		0. 39. 1		1	88. 28. 10,69	19,765	
47	62 Piscium.....			0. 40. 27		1	83. 31. 30,24	19,743	
48	δ Piscium.....			0. 40. 51		1	83. 14. 15,80	19,737	
49	Bessel o. 797.....	8.9	1	0. 45. 22,95	3,113		80. 55		
50	Bessel o. 851.....	8	1	0. 48. 41,94	3,112	2	81. 35. 18,52	19,604	
51	Bessel o. 891.....	8.9	1	0. 51. 8,74	3,106		83. 6		
52	Bessel o. 928.....	7.8		0. 53. 3		2	85. 58. 50,07	19,521	
53	70 Piscium.....	8	1	0. 54. 16,09	3,110		82. 52		
54	ϵ Piscium.....			0. 55. 7		1	82. 55. 24,91	19,477	
55	ϵ Piscium R.....					1	26,36	- 19,477	
56	Bessel o. 1023.....	9	1	0. 57. 57,57	+ 3,080		88. 20		

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
57	29 Ceti.....	7	1	1. 0. 12.84	+ 3,078		88. 48		
58	<i>e</i> Piscium.....			1. 0. 36		2	85. 9. 0.97	- 19,358	
59	Bessel 1. 25.....	8		1. 2. 42		1	88. 15. 4.33	19,310	
60	POLARIS. <i>nf.</i>		35	1. 4. 43.64	17,482	1	1. 29. 43.64	19,277	
61	Polaris R.....					1	42.93		
62	Polaris SP.....					1	45.52		
63	Polaris SP. R.....					1	44.81		
64	88 Piscium.....	6		1. 6. 51		1	83. 48. 17.37	19,208	
65	Bessel 1. 162.....	7		1. 11. 2		1	86. 8. 32.15	19,109	
66	Bessel 1. 245.....	7.8		1. 15. 11		1	81. 36. 5.62	18,985	
67	Bessel 1. 328.....	8		1. 19. 28		2	83. 49. 21.96	18,861	
68	Bessel 1. 391.....	8		1. 22. 59		1	84. 48. 24.84	18,755	
69	Bessel 1. 410.....	7.8		1. 23. 57		1	80. 47. 26.25	18,725	
70	B.A.C. 471.....	7.8		1. 26. 58		1	82. 30. 3.05	18,628	
71	β Arietis.....			1. 46. 18		2	69. 55. 57.97	17,936	
72	β Arietis R.....					2	55.64	17,936	
73	α ARIETIS.....		18	1. 58. 40.31	3,362	3	67. 15. 15.02	17,286	
74	α Arietis R.....					1	18.76		
75	Bessel 11. 211.....	7.8		2. 13. 32		1	75. 10. 29.29	16,746	
76	B.A.C. 750.....	8		2. 18. 5		1	80. 2. 10.67	16,524	
77	26 Arietis.....	7		2. 22. 11		1	70. 49. 6.51	16,319	
78	Bessel 11. 474.....	8.9		2. 28. 7		1	76. 59. 32.20	16,011	
79	H. C. 4881.....	7.8		2. 30. 9		1	70. 55. 45.20	15,902	
80	μ Arietis.....	6		2. 33. 52		1	70. 38. 7.72	15,703	No. 80. 'Fully of Mag. 6.'
81	B.A.C. 845.....	5.6		2. 36. 47		1	80. 31. 36.73	15,544	
82	H. C. 5157.....	8.9		2. 39. 2		1	73. 25. 35.52	15,418	
83	Bessel 11. 866.....			2. 49. 8		1	96. 51. 58.44	14,836	
84	α CETI.....		14	2. 54. 23.48	3,126	1	86. 30. 21.55	14,416	
85	Bessel 11. 995.....	7.8		2. 56. 17		1	74. 44. 1.12	14,409	
86	ρ^5 Eridani.....		1	2. 56. 51.58	2,936		98. 12		
87	Bessel 111. 90.....		1	3. 5. 10.29	2,931		98. 13		
88	Bessel 111. 278.....			3. 15. 56		4	98. 19. 36.14	13,162	
89	Bessel 111. 442.....			3. 24. 42		4	98. 21. 22.70	12,573	
90	δ Persei R.....			3. 32. 12		1	42. 42. 1.79	12,056	
91	40 Persei.....		3	3. 32. 49.27	3,779	2	56. 31. 24.79	12,012	
92	*.....	10	1	3. 36. 24.35	3,821	2	55. 15. 37.96	11,760	
93	ζ Persei. <i>nf.</i>			3. 44. 39		1	58. 34. 10.23	11,167	
94	ζ Persei R.....					1	8.43	11,167	
95	Bessel 111. 924.....		3	3. 47. 20.38	2,874	1	99. 58. 8.57	10,970	
96	Bessel 111. 965.....			3. 49. 24		3	100. 11. 36.76	10,820	
97	ω^2 Tauri.....		5	4. 8. 25.23	3,506	1	69. 47. 53.15	9,383	
98	H. C. 8336.....			4. 18. 11		1	71. 13. 25.12	8,619	
99	H. C. 8479.....		1	4. 21. 47.02	2,826	2	101. 23. 34.23	8,334	
100	ρ Tauri.....		2	4. 25. 17.04	3,388		75. 29		
101	B.A.C. 1417.....	8	1	4. 26. 52.07	3,507		70. 26		
102	ALDEBARAN.....		18	4. 27. 15.69	3,433	1	73. 47. 56.25	7,725	
103	Aldebaran R.....					1	57.88		
104	Groombridge 851...		1	4. 27. 34.17	4,171	1	48. 11. 30.22	7,872	No. 104. The R.A. is 1 ^s greater than that of Groombridge.
105	H. C. 8705.....		2	4. 29. 21.85	3,529	1	69. 37. 22.77	7,727	No. 105. The magnitude in H. C. is 5 $\frac{1}{2}$.
106	H. C. 8798.....		1	4. 32. 25.86	3,537	2	69. 23. 8.88	7,477	See the observation with the Transit on Feb. 12.
107	* (Mag. 9.10).....		1	4. 32. 29.09	3,530	2	69. 41. 32.41	7,476	
108	τ Tauri.....		1	4. 33. 11.29	3,589		67. 20		
109	H. C. 8806.....		2	4. 33. 27.19	4,195		47. 52		
110	H. C. 9058.....	8	4	4. 42. 28.75	4,270	3	46. 26. 46.32	6,656	No. 110. The N.P.D. by H. C. is about 8" less.
111	H. C. 9228.....	8	2	4. 47. 14.27	3,567	5	68. 40. 22.94	6,261	No. 111. The N.P.D. by H. C. is about 5" less.
112	B.A.C. 1542.....	6.7	4	4. 52. 0.10	3,866	3	75. 50. 55.94	5,864	
113	Bessel 11. 1199.....		2	4. 53. 48.62	3,383	3	76. 18. 34.81	5,711	
114	ι Tauri.....		1	4. 54. 4.50	3,572	1	68. 37. 48.40	5,689	
115	Rumker 1382.....	8	1	4. 58. 10.82	3,389	1	76. 7. 7.56	5,343	
116	* (Mag. 8.9).....		1	4. 58. 28.46	4,382		44. 30		No. 116. The magnitude and approximate N.P.D. were ascertained by Equatorial observations 1854 Nov. 3.
117	m Tauri.....		2	4. 58. 31.79	3,501	1	71. 33. 45.25	5,314	No. 118 and 120. The magnitudes were ascertained 1854 Nov. 3 by Equatorial observations.
118	* (Mag. 8.9).....		1	4. 58. 47.57	4,385	2	44. 27. 8.69	5,292	
119	H. C. 9656.....		2	5. 0. 48.43	4,384	1	44. 32. 13.07	5,123	
120	* (Mag. 9).....		1	5. 1. 12.86	4,390		44. 26		
121	Bessel v. 11.....		1	5. 1. 41.63	3,388	1	76. 11. 59.41	5,045	
122	Bessel v. 12.....			5. 1. 42		1	76. 12. 28.66	5,045	
123	108 Tauri.....		3	5. 6. 23.41	3,599	1	67. 53. 36.04	4,649	
124	RIGEL. <i>nf.</i>		19	5. 7. 16.96	+ 2,880	2	98. 22. 49.37	- 4,561	

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				h. m. s.	s.		° ' "	"	
125	α Tauri.....	11	2	5.10.12,60	+3,596	1	68.3.52,40	-4,322	No. 126. The N.P.D. of this star by the observation of Dec. 4, 1848, is 1' too great.
126	*.....		3	5.11.37,52	3,617	3	67.19.51,71	4,201	
127	B.A.C. 1656.....		1	5.13.30,40	3,261		81.43		
128	β Tauri.....	9.10	15	5.16.45,04	3,788	1	61.31.31,52	3,561	No. 132. Estimated of Mag. 7.8 on Feb. 8, and of Mag. 10 on Feb. 12.
129	β Tauri R.....					1	31,69		
130	*.....		2	5.18.10,27	3,628	2	67.1.42,53	3,640	
131	H. C. 10208.....	5.6	2	5.19.18,58	3,619	2	67.23.14,92	3,541	No. 136. Observed three times with the Circle in 1846. In each observation, both of that year and of 1849, this star is stated to be very faint. Bessel's magnitude is 9, and N.P.D. about 20" greater. The identity of the star is perhaps doubtful.
132	Rumker 1445.....		3	5.21.55,05	3,633	2	66.54.39,30	3,317	
133	119 Tauri.....		2	5.23.21,94	3,512	1	71.31.21,69	3,192	
134	120 Tauri.....	7.8	3	5.24.40,84	3,511		71.34		
135	ϵ Orionis.....			5.28.33		1	91.18.11,53	2,743	
136	Bessel v. 802.....		1	5.31.34,62	3,239	1	82.46.22,81	2,480	
137	B.A.C. 1801.....	8.9	1	5.34.9,54	3,638	1	66.52.21,42	2,256	
138	* (Mag. 10).....			5.34.47		1	82.25.30,91	2,202	
139	H. C. 10816.....			5.35.30		1	82.5.52,15	2,140	
140	Rumker 1592.....	20	4	5.42.3,93	3,661		66.7		
141	α ORIONIS.....			5.46.59,89	3,247		82.38		
142	Bessel v. 1204.....			5.47.6		3	104.9.45,95	1,130	
143	η Leporis.....	4	4	5.49.31,78	2,733	2	104.11.57,86	0,915	
144	Bessel v. 1284.....		1	5.50.15,82	3,255	2	82.9.37,61	0,851	
145	Rumker 1654.....		4	5.52.16,85	3,657	2	66.18.23,54	0,675	
146	Rumker 1656.....	4	1	5.52.18,78	3,658	1	66.16.18,05	0,672	
147	χ^3 Orionis.....		4	5.54.31,21	3,549	3	70.18.42,98	0,480	
148	H. C. 11457.....			5.55.1		1	80.50.32,49	0,436	
149	Bessel v. 1460.....	3	3	5.57.0,48	3,238	4	82.52.2,34	-0,262	
150	5 Geminorum.....		4	6.2.16,79	3,678	3	65.33.6,84	+0,200	
151	68 Orionis.....		2	6.3.4,85	3,552	2	70.10.49,72	0,270	
152	B.A.C. 1994.....	4	4	6.4.31,01	2,918	1	96.31.12,85	0,395	
153	8 Geminorum.....		3	6.7.5,60	3,666	4	65.59.10,66	0,621	
154	B.A.C. 2042.....		2	6.12.36,47	3,660	5	66.10.28,39	1,102	
155	*.....	9.10	2	6.14.1,87	3,670	4	65.48.5,39	1,227	
156	H. C. 12217.....		2	6.16.6,26	3,658	4	66.12.47,51	1,408	
157	* (Mag. 8).....		3	6.17.47,80	3,659	5	66.10.59,78	1,556	
158	Bessel vi. 544.....	4		6.18.10		4	104.25.25,24	1,588	
159	16 Geminorum.....		1	6.18.57,93	3,571		69.25		
160	H. C. 12358.....		1	6.19.55,45	3,564	1	69.40.11,16	1,742	
161	ν Geminorum.....	2	2	6.19.59,79	3,563	1	69.41.48,93	1,748	No. 162. The magnitude and approximate N.P.D. were determined Nov. 6, 1854 by Equatorial observations.
162	* (Mag. 8.9).....		2	6.23.50,67	3,188		84.52		
163	B.A.C. 2118.....		2	6.23.54,05	3,188	4	84.57.17,54	2,088	
164	Bessel vi. 809.....	7.8	4	6.26.26,91	2,722	5	104.42.14,98	2,309	
165	Argelander 7143.....		1	6.32.6,38	4,741	3	38.24.23,63	2,800	
166	Bessel vi. 990.....		2	6.32.22,72	2,740	4	104.0.53,19	2,824	
167	H. C. 12821.....	1	1	6.32.32,03	3,133	1	87.18.30,83	2,837	
168	26 Geminorum.....		2	6.33.36,76	3,405		72.13		
169	Bessel vi. 1041.....			6.34.10		3	86.36.43,16	2,979	
170	H. C. 12887.....	6.7	1	6.35.11,63	3,140	3	86.59.25,10	3,068	No. 170. The R.A. of H.C. is 45" less, the N.P.D. agreeing. The star appears to be Bessel vi. 1074: if so, Bessel's N.P.D. is 10' in defect.
171	*.....		3	6.36.24,16	3,666	3	65.43.19,09	3,170	
172	* (Mag. 9).....		1	6.37.16,87	3,665	4	65.45.26,17	3,248	
173	SIRIUS.....	13		6.38.29,67	2,645		106.31		No. 175. The magnitude and position were verified by Equatorial observations Nov. 3, 1854. The star is Bessel Z. 348, 6 ^h . 33 ^m . 28 ^s . 40, the R.A. of which is 1 ^m in defect.
174	11 Canis Majoris.....		3	6.39.57,91	2,736	1	104.16.4,58	3,469	
175	* (Mag. 7.8).....		3	6.41.27,68	3,652		66.8		
176	Bessel vi. 1351.....	4	4	6.43.54,61	2,729	4	104.34.8,45	3,820	No. 177. H. C. 13280 is the same star, with an error of 1' in N.P.D.
177	H. C. 13279.....		2	6.45.30,23	3,666	4	65.34.2,67	3,955	
178	Argelander 7375.....		2	6.45.39,08	4,775	3	37.32.32,79	3,968	
179	H. C. 13313.....	1	1	6.46.25,36	3,659	1	65.48.20,94	4,034	No. 180. The approximate R.A. was ascertained by an Equatorial observation.
180	* (Mag. 9).....			6.48.4		2	65.52.11,71	4,174	
181	B.A.C. 2283.....		3	6.51.31,28	3,641	5	66.21.18,25	4,470	
182	ω Geminorum.....	7		6.53.13		1	65.34.28,22	4,615	No. 183. This is Bessel Z. 348, 6 ^h . 51 ^m . 46 ^s .
183	* (Mag. 9).....			6.53.45		3	65.51.22,55	4,661	
184	ζ Geminorum.....			6.55.9		1	69.12.44,32	4,780	
185	ζ Geminorum R.....	10				1	47,87		
186	*.....		5	6.56.1,52	3,646	3	66.3.2,30	4,852	
187	*.....		10	6.56.4		2	66.4.31,96	4,857	
188	* (Mag. 8.9).....	3	3	6.58.3,99	3,650	3	65.52.16,90	5,026	No. 188. The magnitude was ascertained by an Equatorial observation on Nov. 22, 1854.
189	Piazzi VI. 328.....		4	6.58.40,26	2,733	5	104.38.46,90	5,078	
190	H. C. 13804.....		2	7.0.8,15	3,642	4	66.7.30,80	5,202	
191	H. C. 13856.....	1	1	7.1.19,30	3,654	1	65.38.53,62	5,303	
192	48 Geminorum.....		5	7.3.15,74	+3,653	3	65.37.26,24	+5,466	

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
193	Rumker 2152	9	5	7. 6. 20.22	+ 3,644	5	65. 53. 11.86	+ 5,724	No. 197. There is no star in the place of H. C. 14509.
194	λ Geminorum. <i>sp.</i> ...		6	7. 9. 24.77	3,456	4	73. 11. 30.64	5,982	
195	58 Geminorum.....		1	7. 14. 23.44	3,614	4	66. 46. 7.92	6,395	
196	H. C. 14350.....		1	7. 15. 20.39	3,614		66. 47		
197	* (Mag. 8.9).....		3	7. 19. 57.77	3,633	4	65. 53. 40.49	6,883	
198	CASTOR. <i>nf.</i>		18	7. 24. 57.59	3,842		57. 47		
199	H. C. 14722.....	7.8	2	7. 26. 7.06	3,608	4	66. 37. 46.57	7,360	
200	Bessel VII. 835.....		3	7. 26. 51.72	2,656	4	104. 12. 4.73	7,421	
201	PROCYON.....		24	7. 31. 23.73	3,146		84. 24		
202	POLLUX.....		14	7. 36. 4.17	3,683	3	61. 36. 49.84	8,224	
203	Pollux R.....					3	50.42		No. 218. The N.P.D. by B.A.C. is about 8" greater.
204	79 Geminorum.....		2	7. 36. 17.16	3,531	4	69. 19. 32.09	8,180	
205	H. C. 15112.....		4	7. 38. 28.89	3,600	4	66. 28. 48.91	8,355	
206	82 Geminorum.....	6	1	7. 39. 31.67	3,598		66. 29		
207	Argelander 8331 ...		1	7. 41. 0.48	4,635		37. 42		
208	Argelander 8355 ...	8.9		7. 42. 5	4,681	5	36. 50. 19.73	8,641	
209	Argelander 8357 ...		4	7. 42. 4.20	4,681		36. 50		
210	84 Geminorum		4	7. 44. 2.58	3,574	3	67. 16. 52.77	8,795	
211	5 Cancri.....		5	7. 52. 53.65	3,428	4	73. 7. 56.32	9,485	
212	B.A.C. 2683.....		5	7. 56. 1.34	3,479	4	70. 44. 6.76	9,724	No. 238. The magnitude is doubtful, the sky being misty on April 17.
213	B.A.C. 2759.....		5	8. 5. 32.23	3,444	3	71. 52. 21.68	10,444	
214	β Cancri.....			8. 8. 19		1	80. 21. 10.27	10,651	
215	β Cancri R.....					1	10.39	10,651	
216	Rumker 2467.....		4	8. 10. 11.75	3,454	4	71. 12. 45.04	10,790	
217	ϕ^2 Cancri. <i>sp.</i>		3	8. 17. 38.72	3,643	2	62. 34. 35.16	11,333	
218	ν^1 Cancri. <i>sp.</i>		4	8. 17. 40.47	3,585	2	64. 58. 23.53	11,337	
219	\circ Ursæ Majoris.....			8. 17. 40		2	28. 46. 57.88	11,335	
220	\circ Ursæ Majoris R..					2	57.92	11,335	
221	H. C. 16810.....		2	8. 25. 49.01	3,408	2	72. 36. 18.05	11,926	No. 247. Bessel x. 522 follows about 15" and has the same N.P.D.
222	Argelander 9164 ...			8. 29. 16	4,445	2	37. 43. 5.20	12,158	
223	Argelander 9165 ...		4	8. 29. 16.07	4,445		37. 43		
224	δ Hydræ.....			8. 29. 39		1	83. 46. 23.60	12,184	
225	δ Hydræ R.....					1	26.35		
226	A ² Cancri.....			8. 38. 39		1	77. 20. 21.47	12,800	
227	ϵ Hydræ. <i>nf.</i>		18	8. 38. 46.62	3,189		83. 2		
228	H. C. 17647.....	8.9	4	8. 48. 35.47	2,833	1	103. 27. 58.30	13,458	
229	Bessel VIII. 1276...		1	8. 49. 4.04	2,836		103. 20		
230	α Cancri.....			8. 50. 14		1	77. 33. 38.69	13,564	No. 238. The magnitude is doubtful, the sky being misty on April 17.
231	Bessel IX. 235		3	9. 11. 33.81	3,287	2	76. 26. 36.07	14,878	
232	Bessel IX. 269		4	9. 13. 3.54	3,288	1	76. 14. 55.26	14,966	
233	α HYDRÆ		23	9. 20. 10.00	2,948		98. 0		
234	Bessel IX. 1074.....			9. 49. 43		1	75. 40. 36.68	16,901	
235	Bessel IX. 1139.....			9. 53. 12		1	75. 20. 54.32	17,073	
236	Bessel IX. 1176.....		1	9. 54. 43.63	3,255		75. 9		
237	REGULUS.....		19	10. 0. 19.56	3,203	1	77. 17. 48.21	17,369	
238	Rumker 3103.....	9.10	1	10. 6. 38.08	3,157		82. 15		
239	* (Mag. 8).....		3	10. 7. 50.29	3,253		73. 51		No. 247. Bessel x. 522 follows about 15" and has the same N.P.D.
240	Bessel x. 155.....	9	1	10. 9. 25.28	3,136		84. 0		
241	γ Leonis.....		4	10. 11. 38.48	3,299	1	69. 23. 48.85	17,855	
242	Rumker 3152.....	9	1	10. 13. 27.83	3,196		78. 10		
243	Bessel x. 285.....	8.9	1	10. 16. 55.58	3,210		76. 30		
244	45 Leonis.....	6	1	10. 19. 40.30	3,176		79. 28		
245	Bessel x. 411	8.9	1	10. 23. 9.40	3,129		83. 53		
246	Bessel x. 448	9	1	10. 25. 47.28	3,159		80. 38		
247	H. C. 20522.....	8	1	10. 29. 0.54	3,196		76. 21		
248	H. C. 20614.....	9	1	10. 32. 30.62	3,117		84. 40		No. 247. Bessel x. 522 follows about 15" and has the same N.P.D.
249	Rumker 3312.....	7.8	1	10. 36. 28.64	3,165		78. 50		
250	38 Sextantis.....	7.8	1	10. 39. 28.01	3,128		82. 51		
251	α Ursæ Majoris.....			10. 54. 22		1	27. 26. 7.04	19,328	
252	α Ursæ Majoris R..					1	4.86		
253	δ LEONIS		7	11. 6. 4.28	3,207		68. 39		
254	θ Leonis.....			11. 6. 19		1	73. 44. 45.01	19,507	
255	θ Leonis R.....					1	44.60	19,507	
256	ξ Ursæ Majoris.....		1	11. 10. 6.88	3,253		57. 37		
257	55 Ursæ Majoris.....		2	11. 10. 53.21	3,301	2	50. 59. 10.86	19,596	
258	ι Leonis. <i>p.</i>		1	11. 16. 3.05	3,122	1	78. 38. 22.59	19,688	
259	83 Leonis. <i>np.</i>		1	11. 19. 6.68	3,087	1	86. 9. 53.00	+ 19,736	
260	β LEONIS.....		5	11. 41. 21.32	+ 3,066		74. 35		

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
261	H. C. 22655.....		1	11.55.49,00	+3,085		59.29		
262	o Virginis.....		2	11.57.31,12	3,073	2	80.25.40,23	+20,054	
263	q Virginis.....		1	12.25.59,43	3,094		98.37		
264	β Corvi.....		5	12.26.27,99	3,131		112.34		
265	γ Virginis.....		1	12.34.0,62	3,073		90.37		
266	28 Virginis.....		1	12.34.9,45	3,094		96.40		
267	58 Virginis.....		2	13.9.32,88	3,139		99.45		
268	SPICA.....		12	13.17.14,69	3,149		100.22		
269	Rumker 4364.....	8.9	4	13.27.55,81	2,873	2	68.26.27,87	18,597	
270	Rumker 4378.....			13.29.34		1	86.50.45,10	18,543	
271	84 Virginis. <i>nf.</i>		1	13.35.28,73	3,030	2	85.41.45,71	18,340	
272	η Ursæ Majoris.....			13.41.35		2	39.55.51,67	18,148	
273	η Ursæ Majoris R.....					2	53,82		
274	H. C. 25569.....		1	13.46.32,59	3,094		92.15		
275	H. C. 25637.....	8	4	13.48.45,72	2,806	4	66.34.37,93	17,839	
276	B.A.C. 4666.....		1	13.52.7,51	3,153		97.25		
277	B.A.C. 4680.....		1	13.56.22,18	3,068		98.32		
278	B.A.C. 4683.....		1	13.57.3,44	3,235		104.8		
279	*.....	8.9	4	13.59.19,58	2,773	2	65.53.14,65	17,396	
280	α Draconis.....			14.0.18		1	24.54.2,72	17,355	
281	α Draconis R.....					1	4,25	17,355	
282	97 Virginis.....	7.8	1	14.4.30,95	3,183		99.11		
283	κ Virginis.....			14.4.51		1	99.34.4,00	17,153	
284	κ Virginis R.....					1	5,01	17,153	
285	Bessel xiv. 87.....		1	14.5.38,25	3,227		102.38		No. 285. This is H. C. 26050, the R.A. of which is 28 ^h 39 ^m too great, being reduced as if the observation were taken at the middle wire.
286	Bessel xiv. 111.....		1	14.7.16,24	3,214		101.32		
287	ARCTURUS.....		17	14.8.46,54	2,733	2	70.1.43,12	18,931	
288	Arcturus R.....					2	45,37		
289	Bessel xiv. 193.....		1	14.11.2,45	3,198		99.55		
290	Bessel xiv. 220.....		1	14.12.14,15	3,173		98.0		
291	Bessel xiv. 259.....			14.14.38		1	101.21.50,89	16,693	
292	Bessel xiv. 280.....		3	14.15.33,12	3,232		102.15		No. 291. This star was noted to be "extremely faint." By Bessel the magnitude is 8, and the N.P.D. 8'' greater. The identity is doubtful.
293	Bessel xiv. 283.....		2	14.15.39,39	3,233	1	102.15.3,87	16,651	
294	B.A.C. 4772.....	7.8	1	14.16.34,31	3,216	1	100.58.52,10	16,599	
295	Bessel xiv. 347.....		1	14.19.8,56	3,263		104.9		
296	Bessel xiv. 353.....		1	14.19.25,56	3,199		99.31		
297	B.A.C. 4787.....		2	14.19.34,71	3,243	1	102.40.38,67	16,459	
298	B.A.C. 4794.....		1	14.20.28,26	3,197		99.20		
299	H. C. 26437.....		2	14.21.26,00	3,206		99.53		
300	Bessel xiv. 424.....		2	14.23.10,26	3,225		101.12		
301	Bessel xiv. 441.....	8	2	14.24.5,24	3,213		100.16		
302	Bessel xiv. 451.....		1	14.24.30,47	3,197		99.5		
303	Bessel xiv. 493.....	10.11	2	14.27.0,12	3,224		100.52		No. 303. The magnitude was estimated in too much day-light.
304	Bessel xiv. 498.....		1	14.27.14,89	3,228		101.5		
305	Bessel xiv. 512.....		1	14.28.5,28	3,262		103.22		
306	B.A.C. 4824.....		1	14.28.14,01	3,198		98.56		
307	Bessel xiv. 523.....		1	14.28.33,96	3,227		100.59		
308	Bessel xiv. 553.....	8.9	1	14.29.58,76	3,250		102.24		
309	H. C. 26657.....		1	14.29.59,72	3,201		99.5		
310	B.A.C. 4837.....	7.8	2	14.30.53,69	3,214		99.54		
311	Bessel xiv. 593.....		1	14.32.17,18	3,267		103.24		
312	Bessel xiv. 596.....		1	14.32.36,44	3,287		104.40		
313	Bessel xiv. 608.....		1	14.33.9,98	3,227		100.43		
314	H. C. 26730.....		1	14.33.22,15	3,340		108.1		
315	Bessel xiv. 652.....		1	14.35.23,73	3,233		100.58		
316	Bessel xiv. 662.....		1	14.36.7,45	3,234		100.58		
317	Bessel xiv. 671.....		1	14.36.40,36	3,205		99.4		
318	H. C. 26849.....	10	1	14.37.13,53	3,315		106.6		
319	H. C. 26882.....		1	14.38.9,02	3,228		100.27		
320	ε Bootis. <i>sf.</i>		11	14.38.23,53	2,622	1	62.17.10,43	15,452	
321	ε Bootis R.....					1	10,73		
322	Bessel xiv. 726.....		1	14.38.56,04	3,233		100.44		
323	Bessel xiv. 735.....		1	14.39.31,66	3,249		101.44		
324	Bessel xiv. 780.....		1	14.41.44,26	3,269		102.53		
325	α ^s LIBRÆ.....		16	14.42.31,99	3,306	1	105.24.38,14	+15,251	
326	Bessel xiv. 846.....		1	14.44.41,12	3,258		102.1		
327	Bessel xiv. 852.....		1	14.45.5,38	3,252		101.37		
328	H. C. 27080.....	8.9	1	14.45.7,26	+3,380		109.21		

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
329	Bessel xiv. 891.		1	14. 47. 12.15	+ 3,305		104. 44		
330	Bessel xiv. 896.	8.9	3	14. 47. 31.68	3,270		102. 35		
331	Bessel xiv. 909.		1	14. 48. 11.27	3,272		102. 40		
332	Bessel xiv. 928.		1	14. 49. 16.63	3,280		103. 6		
333	H. C. 27229.	9.10	1	14. 50. 1.11	3,432		111. 47		
334	17 Libræ.		1	14. 50. 2.88	3,239		100. 33		
335	18 Libræ. <i>sp.</i>	6.7	1	14. 50. 43.89	3,239		100. 32		
336	H. C. 27288.		1	14. 51. 51.73	3,367		108. 2		
337	Bessel xiv. 986.	8	1	14. 52. 19.00	3,253		101. 16		
338	B.A.C. 4947.	7.8	1	14. 54. 37.68	3,354		107. 2		
339	H. C. 27385.		1	14. 55. 7.95	3,336		106. 0		
340	Bessel xiv. 1069.		1	14. 56. 22.89	3,309		104. 24		
341	B.A.C. 4964.	8	1	14. 57. 26.73	3,462		112. 44		
342	17 Libræ.		1	14. 58. 12.92	3,334		105. 40		
343	H. C. 27495.		1	14. 59. 4.08	3,307		104. 6		
344	Bessel xiv. 1150.		1	15. 0. 43.39	3,297		103. 25		
345	B.A.C. 4984.	7.8	1	15. 1. 3.48	3,482		113. 24		No. 345. This is H. C. 27563, the N.P.D. of which is 6' too small.
346	Bessel xv. 34.		1	15. 2. 56.28	3,283		102. 29		
347	H. C. 27641.	7.8	1	15. 3. 24.31	3,338		105. 35		
348	B.A.C. 4998.	8	1	15. 4. 28.54	3,489		113. 27		
349	Bessel xv. 91.	7.8	2	15. 5. 57.89	3,306		103. 38		
350	B.A.C. 5027.	8	1	15. 7. 58.11	3,495		113. 27		
351	Bessel xv. 135.	8	2	15. 8. 13.15	3,291		102. 39		
352	H. C. 27825.	8	1	15. 9. 10.42	3,431		110. 10		
353	Bessel xv. 185.	9	1	15. 10. 43.55	3,313		103. 47		
354	Bessel xv. 199.		1	15. 11. 33.93	3,315		103. 51		
355	Bessel xv. 206.	7.8	1	15. 11. 50.38	3,293		102. 38		
356	Bessel xv. 218.	8.9	1	15. 12. 32.22	3,334		104. 49		
357	18 Libræ.	7	2	15. 14. 36.87	3,332		104. 35		
358	Bessel xv. 259.		1	15. 14. 52.67	3,310		103. 22		No. 358. The N.P.D. in Weisse is 10' too small.
359	H. C. 28046.	8	1	15. 16. 11.90	3,469		111. 30		
360	H. C. 28062.	8	1	15. 16. 37.21	3,467		111. 24		
361	Bessel xv. 314.	9.10	1	15. 17. 10.77	3,341		104. 55		
362	H. C. 28126.	7.8	2	15. 18. 38.29	3,348		105. 15		
363	H. C. 28137.	10	1	15. 19. 16.27	3,342		104. 53		
364	17 Libræ.		1	15. 19. 44.91	3,368		106. 11		
365	H. C. 28166.		1	15. 20. 15.22	3,526		113. 55		
366	Bessel xv. 400.	8	1	15. 21. 31.90	3,333		104. 17		
367	H. C. 28212.		1	15. 21. 53.13	3,450		110. 12		
368	17 Libræ.		1	15. 22. 9.86	3,368		106. 5		
369	H. C. 28233.	9	1	15. 22. 25.81	3,413		108. 19		
370	Bessel xv. 419.	8.9	2	15. 22. 36.69	3,354		105. 20		
371	H. C. 28247.		1	15. 23. 13.23	3,450		110. 7		
372	H. C. 28296.		1	15. 24. 59.29	3,451		110. 2		
373	H. C. 28320.		1	15. 25. 39.22	3,326		103. 43		
374	H. C. 28345.	6.7	1	15. 26. 27.03	3,384		106. 38		
375	α CORONÆ BOREALIS		13	15. 28. 17.71	2,538		62. 46		
376	Bessel xv. 597.	8	1	15. 31. 25.06	3,328		103. 33		
377	B.A.C. 5184.	8	1	15. 34. 17.12	3,370		105. 32		
378	α SERPENTIS.		16	15. 36. 50.07	2,951		83. 6		
379	H. C. 28752.		1	15. 39. 53.93	3,540		113. 13		No. 379. Estimated of 11th magnitude: but circumstances unfavorable and the star low.
380	H. C. 28766.	8	2	15. 40. 26.68	3,432		108. 14		
381	H. C. 28838.	8	2	15. 42. 57.05	3,440		108. 29		
382	Bessel xv. 838.	8	1	15. 43. 9.47	3,354		104. 24		
383	3 Scorpii.	7	1	15. 45. 36.25	3,585		114. 48		
384	H. C. 28954.	10	2	15. 47. 15.85	3,364		104. 42		
385	B.A.C. 5278.	8.9	1	15. 48. 22.10	3,503		111. 2		
386	Bessel xv. 950. <i>nf.</i> ..		1	15. 49. 40.73	2,812		77. 5		
387	H. C. 29043.		1	15. 50. 20.93	3,470		109. 30		
388	δ Scorpii.		3	15. 51. 24.89	3,532		112. 11		
389	H. C. 29113.		1	15. 53. 2.36	3,520		111. 33		
390	H. C. 29156.	8	1	15. 54. 21.03	3,473		109. 25		
391	B.A.C. 5335.	7.8	1	15. 57. 6.58	3,563		113. 12		
392	H. C. 29347.	9	1	15. 59. 44.87	3,500		110. 21		
393	H. C. 29456.	9.10	1	16. 2. 55.52	3,544		112. 6		
394	δ Ophiuchi.		5	16. 6. 26.27	3,138	1	93. 18. 4.77	+ 9,643	
395	δ Ophiuchi R.					1	3.97		
396	χ Ophiuchi.		1	16. 18. 16.94	+ 3,466		108. 6		

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
397	ANTARES.....		5	16.20. 9.42	+ 3,665		116. 6		
398	Bessel xvi. 1023....			16.53. 42		1	98.43. 0.48	+ 5,721	
399	ε Herculis.....			16.54. 31		2	58.50.50.41	5,653	
400	ε Herculis R.....					2	51.93	5,653	
401	H. C. 31042.....		1	16.57. 0.79	3,486		107.54		
402	Bessel xvi. 1108 ...	9		16.58. 30		1	99.33.49.20	5,319	
403	Bessel xvi. 1114 ...	8		16.58. 48		1	99.35. 0.21	5,292	
404	H. C. 31157.....		1	17. 0.36.09	3,420		105. 7		
405	Bessel xvii. 3.....			17. 1.27		1	100.19.16.23	5,067	No. 405. Of 6th magnitude by Bessel.
406	H. C. 31258.....		1	17. 3.37.03	3,501		108.21		
407	*.....	10		17. 3.36		1	101.26.52.46	4,893	
408	Bessel xvii. 48.....			17. 3.57		1	101.25.15.11	4,856	
409	α Herculis. <i>np</i>		10	17. 7.45.92	2,732	2	75.25.59.51	4,469	
410	α Herculis R.....					1	60.95		
411	Bessel xvii. 133 ...			17. 8.31		2	102.55.43.30	4,467	
412	θ Ophiuchi.....	7	1	17.12.44.46	3,677		114.51		
413	H. C. 31513.....	8.9	1	17.12.57.86	3,501		108.10		
414	B.A.C. 5866.....	7.8	1	17.15.40.33	3,582		111.18		
415	H. C. 31657.....	8.9	1	17.16.52.82	3,629		113. 2		
416	B.A.C. 5885.....			17.18. 7		2	104.59.29.75	3,645	
417	ρ Herculis. <i>sf</i>			17.18.29		1	52.42.42.67	3,615	
418	ρ Herculis R.....					1	42.15	3,615	
419	H. C. 31723.....	9.10	2	17.18.44.71	3,504		108.13		No. 419. Estimated on July 11 of 10.11 magnitude, and on July 6 of 8.9 magnitude.
420	H. C. 31752.....	8	2	17.19.48.34	3,495	1	107.51.50.86	3,498	
421	κ ¹ Ophiuchi.....	8	1	17.21.37.85	3,650		113.43		
422	H. C. 31814.....		1	17.22. 1.58	3,645		113.32		No. 422. Too low for accurate estimation of magnitude.
423	B.A.C. 5909.....	7	1	17.22.21.69	3,718		116. 9		
424	B.A.C. 5910.....			17.22.36		1	90.56. 0.21	3,258	
425	B.A.C. 5918.....			17.23.49		2	31.13.14.12	3,153	
426	B.A.C. 5920.....	6.7	1	17.24.12.21	3,484		107.23		
427	H. C. 31922.....	8.9	1	17.24.53.74	3,629		112.55		
428	H. C. 31954.....	7		17.25.43		1	108. 6.36.63	2,988	
429	H. C. 31955.....	8	1	17.25.43.84	3,505		108.12		
430	α OPHIUCHI.....		16	17.27.55.67	2,779		77.20		
431	B.A.C. 5948.....			17.28.56		2	105.28.24.14	2,710	
432	H. C. 32065.....	8		17.29.12		1	109.52.38.37	2,686	
433	B.A.C. 5961.....	8.9	1	17.30.48.91	3,801		118.50		
434	H. C. 32156.....	8	1	17.31.37.31	3,654		113.45		
435	H. C. 32194.....	9	1	17.32.27.29	3,516		108.34		
436	H. C. 32195.....	9	1	17.32.39.46	3,740		116.46		
437	H. C. 32211.....	9	1	17.33.10.49	3,642		113.16		
438	H. C. 32231.....	7		17.33.35		1	110. 1.24.66	2,307	No. 439. The N.P.D. is 8" greater than that given by the observation of July 18, 1848, which was made under bad circumstances.
439	* (Mag. 9,10).....			17.34.21		2	31. 7. 8.28	2,240	
440	H. C. 32271.....	8.9	1	17.34.31.96	3,488		107.26		
441	H. C. 32264.....	9	1	17.34.33.19	3,725		116.14		
442	B.A.C. 5989.....	8		17.35. 5		1	113.36.18.24	2,175	
443	H. C. 32316.....	8	1	17.35.40.10	3,479		107. 4		No. 443. H. C. 32315 and 32316 are the same star.
444	H. C. 32335.....		1	17.36. 9.77	3,481		107. 9		
445	H. C. 32344.....	8.9	1	17.36.35.07	3,743		116.49		
446	H. C. 32369.....	8.9	1	17.37. 7.69	3,595		111.32		No. 446. The R.A. of H. C. is 5" too great, being incorrectly reduced from the original observation. The star is Argelander Z. 224 No 8.
447	3 Sagittarii.....	6.7	1	17.38. 3.41	3,771		117.46		
448	H. C. 32424.....	7.8	1	17.38.38.44	3,620		112.25		
449	Σ 2217. <i>sf</i>			17.39.51		3	75. 9.35.33	1,762	No. 449. This is Bessel xvii. 800.
450	H. C. 32471.....	8	2	17.40. 9.72	3,645	1	113.18.39.07	1,733	
451	H. C. 32486.....	8.9	3	17.40.39.63	3,742		116.45		
452	Σ 2224. <i>sf</i>		1	17.40.59.66	1,977		50.37		
453	B.A.C. 6027.....	7.8		17.41.58	3,633	1	112.52. 5.46	1,576	
454	H. C. 32602.....	7	1	17.43.33.94	3,505		108. 3		
455	H. C. 32604.....	8.9	1	17.43.47.41	3,767		117.35		
456	B.A.C. 6044.....	6	3	17.44. 5.99	3,757		117.14		
457	H. C. 32632.....	7.8	1	17.44.29.67	3,490	1	107.26.32.01	1,355	
458	H. C. 32648.....			17.44.50		1	109.50.52.36	1,326	
459	H. C. 32706.....	8	1	17.46.15.71	3,511		108.16		
460	B.A.C. 6059.....	7.8	2	17.46.58.88	3,743		116.44		
461	B.A.C. 6063.....	7.8	1	17.47.10.08	3,782		118. 2		
462	H. C. 32742.....	8	1	17.47.18.45	3,647		113.22		
463	H. C. 32847.....	7.8	3	17.49.49.71	3,624	2	112.29.46.44	0,889	No. 463. The estimations of magnitude confirm that of H. C.
464	H. C. 32855.....	9	1	17.49.57.41	+ 3,646	1	113.17.40.77	+ 0,878	

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
465	H. C. 32861.....	8		17.50. 6		1	110. 2. 29,42	+ 0,866	
466	H. C. 32865.....	7	1	17.50. 18,74	+ 3,623	2	112. 26. 50,90	0,847	
467	H. C. 32886.....	8		17.50. 53		1	112. 31. 50,69	0,796	
468	ξ Draconis.....			17.50. 55		1	33. 6. 7,15	0,795	
469	ξ Draconis R.....					1	6,56	0,795	
470	B.A.C. 6081.....	7		17.51. 1		1	110. 19. 19,14	0,784	
471	H. C. 32937.....	8	1	17.52. 20,16	3,518		108. 30		
472	H. C. 32940.....	8.9	1	17.52. 35,72	3,670		114. 9		
473	H. C. 32971. <i>nf.</i>	7.8	2	17.53. 13,80	3,638		113. 1		
474	H. C. 32974.....			17.53. 24		1	117. 49. 11,82	0,576	
475	H. C. 33005.....	8		17.53. 54		1	107. 30. 55,46	0,532	
476	H. C. 33017.....	9		17.54. 17		1	112. 36. 41,31	0,500	
477	H. C. 33058.....	8	1	17.55. 4,99	3,624	1	112. 29. 56,42	0,429	
478	γ ¹ Sagittarii.....	6		17.55. 23		1	119. 34. 49,24	0,404	
479	B.A.C. 6108.....	8	1	17.55. 27,73	3,712		115. 37		
480	H. C. 33074.....	8	1	17.55. 34,35	3,488		107. 21		
481	H. C. 33111.....	7.8	1	17.56. 36,81	3,551	1	109. 45. 27,53	0,296	
482	H. C. 33147.....	7	1	17.57. 47,68	3,598		111. 31		
483	B.A.C. 6125.....	7.8	1	17.58. 7,98	3,596	1	111. 27. 11,73	0,162	
484	H. C. 33171.....	8		17.58. 18		1	111. 12. 42,10	0,149	
485	B.A.C. 6127.....	6		17.58. 31		1	118. 28. 5,18	0,128	
486	H. C. 33188.....	8.9	1	17.59. 3,67	3,778		117. 53		
487	* (Mag. 7).....		1	17.59. 25,24	2,546		68. 34		
488	H. C. 33203.....	8		17.59. 26		2	111. 16. 0,66	+ 0,049	
489	B.A.C. 6132.....	6.7	1	17.59. 33,99	3,708		115. 29		
490	B.A.C. 6133.....	7	1	17.59. 35,13	3,596		111. 28		
491	B.A.C. 6141.....	8		18. 0. 4		1	114. 0. 17,95	- 0,006	
492	72 Ophiuchi.....			18. 0. 12		2	80. 27. 11,67	0,017	
493	72 Ophiuchi R.....					2	13,46	0,017	
494	H. C. 33272.....	8	2	18. 0. 53,82	3,660		113. 48		
495	H. C. 33288.....			18. 1. 18		1	113. 35. 11,64	0,115	
496	H. C. 33316.....	8.9		18. 1. 52		1	108. 30. 24,82	0,165	
497	B.A.C. 6158.....	6.7	1	18. 2. 17,83	3,554		109. 52		
498	B.A.C. 6161.....			18. 2. 31		1	113. 43. 32,78	0,220	
499	Σ 2286. <i>sf.</i>		1	18. 2. 42,04	3,059		89. 29		
500	H. C. 33350.....	7.8		18. 2. 59		1	110. 27. 0,36	0,261	
501	H. C. 33367.....	8		18. 3. 20		1	109. 27. 37,51	0,292	
502	H. C. 33385.....	9		18. 3. 42		1	108. 25. 34,47	0,325	
503	μ ¹ SAGITTARIUS.....		11	18. 4. 44,04	3,587		111. 6		
504	H. C. 33470.....	7		18. 4. 47		1	108. 25. 18,07	0,420	No. 504. The R.A. of H. C. 33470 is 1 st too great.
505	14 Sagittarii.....	5.6	1	18. 5. 11,60	3,604		111. 45		
506	15 Sagittarii.....	7		18. 6. 13		2	110. 46. 1,37	0,544	
507	*.....	11		18. 7. 6		1	108. 28. 34,74	0,621	No. 507. Too cloudy for estimation of magnitude.
508	17 Sagittarii.....	6.7	1	18. 7. 35,70	3,573		110. 35		
509	*.....	8		18. 7. 45		1	108. 51. 2,19	0,678	
510	H. C. 33559.....	9	1	18. 8. 3,09	3,616		112. 13		
511	H. C. 33564.....	7.8	1	18. 8. 5,20	3,531	1	109. 0. 45,22	0,709	
512	B.A.C. 6195.....	7		18. 8. 37		3	108. 30. 39,63	0,755	
513	H. C. 33591.....	8		18. 8. 48		1	112. 23. 28,99	0,771	
514	H. C. 33604.....	8	1	18. 9. 6,04	3,524	1	108. 45. 6,85	0,798	
515	H. C. 33627.....	8		18. 9. 31		2	108. 31. 34,79	0,833	
516	* (Mag. 8).....			18. 10. 9		1	108. 33. 43,08	0,889	No. 516. The magnitude is taken from Argelander Z. 218 No. 62.
517	H. C. 33682.....	8.9	1	18. 10. 37,76	3,551		109. 47		
518	H. C. 33691.....	7	3	18. 11. 1,56	3,499		107. 48		
519	H. C. 33709.....	7.8		18. 11. 35		1	110. 16. 26,67	1,013	
520	H. C. 33729.....	8.9	1	18. 12. 5,14	3,549	2	109. 43. 0,67	1,058	
521	B.A.C. 6220.....	7.8		18. 12. 27		1	118. 29. 33,61	1,089	
522	H. C. 33748.....	6	1	18. 12. 30,15	3,528		108. 55		
523	H. C. 33767.....	8.9		18. 12. 58		1	112. 21. 38,64	1,136	
524	H. C. 33812.....	8.9	1	18. 14. 4,48	3,478	2	106. 59. 31,70	1,233	
525	H. C. 33817.....	8	2	18. 14. 20,16	3,575		110. 43		
526	H. C. 33830.....	8		18. 14. 46		1	116. 31. 7,82	1,291	No. 526. The N.P.D. of H. C. is 10' too small.
527	H. C. 33855.....	9	1	18. 15. 15,03	3,738		116. 34		
528	H. C. 33885.....	8.9	2	18. 15. 59,00	3,638	2	113. 3. 15,05	1,399	
529	H. C. 33894.....	8		18. 16. 8		2	108. 36. 46,95	1,412	
530	H. C. 33917.....	8.9	1	18. 16. 37,47	3,586		111. 7		
531	H. C. 33957.....	8	1	18. 17. 30,42	+ 3,651		113. 31		
532	H. C. 33974.....	10		18. 17. 51		1	107. 44. 10,63	- 1,560	No. 532. Sky probably cloudy.

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
533	B.A.C. 6264.....	7.8	1	18.18.40,60	+ 3,745		116.50		No. 534. The N.P.D. is 10'' less than that of B.A.C. The star is H. C. 34020.
534	B.A.C. 6266.....	7.8		18.18.57		1	113.5.9,72	- 1,658	
535	B.A.C. 6267.....	6	2	18.19.7,77	3,501	1	107.53.9,19	1,672	
536	B.A.C. 6273.....	7.8		18.20.3		1	115.20.46,46	1,754	
537	H. C. 34117.....	7.8	1	18.20.50,31	+ 3,583	1	111.2.31,20	1,822	
538	δ URSÆ MINORIS...		3	18.21.2,66	- 19,290		3.24		No. 543. Magnitude doubtful, the sky being clouded.
539	H. C. 34152.....	8	1	18.21.44,88	+ 3,690		114.59		
540	H. C. 34157.....	9	1	18.21.57,05	3,598	2	111.37.19,42	1,918	
541	B.A.C. 6299.....	7.8	1	18.22.59,75	3,535	2	109.13.30,13	2,009	
542	H. C. 34229.....	8	1	18.23.39,21	3,614		112.14		
543	B.A.C. 6304.....	9		18.24.0		1	114.12.53,71	2,098	No. 548. The R.A. agrees nearly with that of Argelander Z. 218 No. 85, and exceeds that of H. C. by about 1'.
544	24 Sagittarii.....	7	1	18.24.39,94	3,666	1	114.8		
545	H. C. 34302.....	9		18.25.15		1	107.38.42,42	2,199	
546	H. C. 34311.....	9		18.25.34		1	112.39.18,56	2,234	
547	H. C. 34336.....	7.8		18.26.20		1	110.57.9,21	2,301	
548	H. C. 34339.....	6.7	1	18.26.22,66	3,479	1	107.5.47,63	2,302	No. 562. The R.A. is 1' greater than that of H. C., but agrees with Argelander Z. 227 No. 68.
549	B.A.C. 6323.....	7		18.26.29		1	109.22.51,57	2,312	
550	H. C. 34354.....	8		18.26.45		1	108.39.50,53	2,337	
551	H. C. 34362.....	9	1	18.26.55,15	3,545		109.40		
552	H. C. 34378.....	9.10	1	18.27.25,30	3,730		116.24		
553	H. C. 34428.....	8.9		18.28.19		1	109.31.21,71	2,472	No. 582. The N.P.D. is 22'' less than that of B.A.C., which is derived from Lacaille. The star is H. C. 34933, the N.P.D. of which agrees with the Cambridge observation.
554	H. C. 34433.....	8.9		18.28.33		1	109.32.45,96	2,492	
555	B.A.C. 6340.....	6.7	1	18.29.5,43	3,485		107.21		
556	B.A.C. 6347.....	7		18.29.53		2	111.10.15,71	2,609	
557	H. C. 34504.....	9	1	18.30.25,61	3,609		112.6		
558	H. C. 34532.....	9	1	18.31.3,23	3,627	1	112.47.40,04	2,710	No. 584. The R.A. agrees with that of Argelander Z. 223 No. 104.
559	H. C. 34572.....	9	1	18.32.19,75	3,762		117.35		
560	H. C. 34589.....	9		18.32.35		2	107.12.31,79	2,842	
561	H. C. 34621.....	8		18.33.24		1	107.8.57,81	2,912	
562	H. C. 34619.....	8	1	18.33.27,58	3,564	2	110.26.57,83	2,917	
563	H. C. 34627.....	8	1	18.33.44,70	3,663		114.7		No. 593. Magnitude estimated under unfavorable circumstances.
564	H. C. 34668.....	8	1	18.34.42,11	3,468		106.56		
565	B.A.C. 6369.....	7	1	18.35.32,54	3,691		115.9		
566	H. C. 34690.....	8	1	18.35.37,64	3,581	1	111.7.4,39	3,106	
567	φ Sagittarii.....	4		18.36.13		1	117.8.23,70	3,157	
568	H. C. 34717.....	7.8	2	18.36.17,84	3,581		111.9		No. 598. Magnitude estimated under unfavorable circumstances.
569	H. C. 34718.....			18.36.18		1	110.47.43,67	3,163	
570	B.A.C. 6374.....	7	1	18.36.35,64	3,761		117.37		
571	H. C. 34735.....	7.8		18.36.50		1	117.29.37,28	3,211	
572	B.A.C. 6376.....	7.8		18.37.6		1	109.45.29,40	3,234	
573	28 Sagittarii.....	7	1	18.37.14,18	3,618		112.33		No. 599. Magnitude estimated under unfavorable circumstances.
574	H. C. 34787.....	8.9	1	18.37.52,25	3,616		112.27		
575	B.A.C. 6386.....	8	1	18.38.54,61	3,562		110.26		
576	H. C. 34860.....	8.9	1	18.39.20,06	3,533		109.22		
577	H. C. 34884.....	6	1	18.39.54,25	3,518	1	108.45.45,30	3,475	
578	B.A.C. 6396.....	9	1	18.40.10,97	3,750		117.18		No. 600. Magnitude estimated under unfavorable circumstances.
579	H. C. 34898.....	9.10	1	18.40.15,71	3,676		114.42		
580	H. C. 34916.....	7		18.40.42		1	109.18.22,78	3,544	
581	H. C. 34930.....	8	2	18.40.51,34	3,475		107.4		
582	B.A.C. 6400.....	8		18.41.6		1	113.0.51,46	3,576	
583	30 Sagittarii.....	7	1	18.41.45,90	3,611	1	112.19.44,81	3,636	No. 603. Magnitude estimated under unfavorable circumstances.
584	B.A.C. 6408.....	8.9	1	18.42.0,62	3,750		117.20		
585	H. C. 35009.....	8	1	18.42.25,79	3,494		107.53		
586	H. C. 35031.....	9		18.43.3		1	110.32.54,23	3,747	
587	H. C. 35053.....	7.8	1	18.43.32,98	3,614		112.29		
588	H. C. 35049.....	9	1	18.43.35,11	3,727		116.34		No. 604. Magnitude estimated under unfavorable circumstances.
589	H. C. 35086.....	8.9	1	18.44.29,29	3,521		108.58		
590	β LYRÆ.....		12	18.44.30,30	2,213	1	56.48.31,26	3,853	
591	β Lyræ R.....					1	32,21		
592	H. C. 35098.....	8	1	18.44.53,21	3,547		109.58		
593	H. C. 35126.....	10		18.45.22		1	110.6.45,64	3,945	No. 605. Magnitude estimated under unfavorable circumstances.
594	H. C. 35168.....	8	1	18.46.14,81	3,559		110.27		
595	H. C. 35188.....			18.46.35		1	108.5.50,74	4,048	
596	B.A.C. 6448.....	7		18.46.52		1	113.21.34,98	4,074	
597	H. C. 35207.....	8		18.47.6		2	107.46.0,28	- 4,093	
598	H. C. 35224.....	9.10	1	18.47.36,21	3,638		113.27		No. 606. Magnitude estimated under unfavorable circumstances.
599	H. C. 35240.....	7.8	2	18.47.58,45	3,486		107.38		
600	ξ' Sagittarii.....	6.7	1	18.48.22,17	+ 3,568		110.51		

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
601	B.A.C. 6467.....	7.8	2	18.49.13,20	+3,562		110.37		No. 602. Circumstances not good for estimation of magnitude.
602	B.A.C. 6474.....	9		18.50.31		2	118.15.1,32	-4,385	
603	H. C. 35355.....	8.9	3	18.50.32,98	3,599	1	112.1.41,81	4,389	
604	H. C. 35374.....	8.9	1	18.51.0,06	3,510	1	108.38.6,78	4,428	
605	H. C. 35411.....	8	1	18.51.57,89	3,479	1	107.25.14,02	4,510	
606	ε Aquilæ.....			18.52.46		1	75.7.58,62	4,577	
607	ε Aquilæ R.....					1	58,29		
608	H. C. 35459.....	8.9	1	18.53.4,98	3,482		107.33		
609	B.A.C. 6490.....	7	1	18.53.13,04	3,679		115.3		
610	γ Lyræ.....			18.53.18		1	57.30.49,07	4,622	
611	γ Lyræ R.....					1	51,44		
612	H. C. 35468.....	9	1	18.53.22,23	3,470		107.4		
613	H. C. 35497.....	7	3	18.54.11,24	3,530	1	109.27.29,18	4,699	
614	H. C. 35499.....	7		18.54.15		1	109.18.57,22	4,703	
615	B.A.C. 6502.....	7.8		18.55.7		1	113.6.44,24	4,778	
616	B.A.C. 6504.....	7		18.55.18		2	111.44.47,30	4,794	
617	B.A.C. 6505.....	8	1	18.55.29,60	3,689		115.28		
618	H. C. 35582.....	9	1	18.55.59,51	3,493		108.1		
619	H. C. 35592.....	8.9	2	18.56.6,75	3,469		107.5		
620	B.A.C. 6515.....	8	1	18.56.54,24	3,745		117.31		
621	H. C. 35635.....	7.8	1	18.57.4,52	3,535		109.42		
622	B.A.C. 6524.....	7.8		18.57.53		2	112.43.24,40	5,013	
623	ζ Aquilæ.....		14	18.58.28,27	2,755	1	76.21.25,65	5,003	
624	ζ Aquilæ R.....					1	24,49		
625	B.A.C. 6532.....	8	1	18.58.45,16	3,731		117.4		
626	B.A.C. 6533.....	7.8		18.59.1		1	114.53.9,85	5,109	
627	B.A.C. 6536.....	7.8	1	18.59.24,38	3,529		109.31		
628	B.A.C. 6544.....	7	2	18.59.53,07	3,520		109.11		
629	π Sagittarii.....	5	1	19.0.46,86	3,573	2	111.15.29,74	5,255	
630	H. C. 35843.....	8	2	19.1.48,35	3,656	1	114.25.30,09	5,344	
631	H. C. 35856.....	10	1	19.2.8,86	3,736		117.19		
632	H. C. 35867.....	7.8		19.2.23		2	110.35.14,84	5,393	
633	H. C. 35902.....	8.9	2	19.2.56,04	3,555		110.38		
634	H. C. 35932.....	9	1	19.3.23,25	3,624		113.17		
635	H. C. 35931.....	9.10	1	19.3.25,56	3,696		115.55		
636	H. C. 35935.....	8	1	19.3.32,79	3,663		114.44		
637	H. C. 35970.....	11		19.4.12		1	109.43.54,27	5,546	
638	H. C. 35991.....	8.9	1	19.4.34,20	3,515		109.6		
639	B.A.C. 6565.....	8	1	19.4.34,16	3,728		117.7		No. 637. The night of August 3 was unfavorable for noting magnitudes.
640	H. C. 36016.....	8		19.5.6		1	112.18.39,64	5,622	
641	B.A.C. 6576.....	7	4	19.6.21,14	3,653	2	114.25.51,72	5,725	
642	H. C. 36087.....	9	2	19.6.32,47	3,538		110.3		
643	H. C. 36117.....	9.10	1	19.7.19,21	3,778		118.56		
644	H. C. 36128.....	8.9	1	19.7.20,59	3,509		108.56		
645	H. C. 36152.....	11		19.7.58		1	111.45.25,26	5,861	
646	H. C. 36164.....	7.8		19.8.8		1	112.0.46,43	5,876	
647	d Sagittarii.....	7	2	19.8.47,92	3,516		109.13		
648	B.A.C. 6587.....	8	2	19.9.21,05	3,513	1	109.7.43,34	5,978	No. 648. By comparison with observations of this star in 1853, the circle reading must have been 3' too great.
649	H. C. 36214.....	9		19.9.24		1	116.20.24,56	5,982	
650	H. C. 36239.....	9	1	19.9.40,40	3,509		108.58		
651	H. C. 36259.....	8.9	1	19.9.54,25	3,510		109.0		
652	H. C. 36288.....	8	1	19.10.41,56	3,597		112.27		
653	B.A.C. 6604.....	8.9	1	19.11.30,73	3,650		114.29		
654	B.A.C. 6607.....	5.6	1	19.11.35,15	3,602		112.41		
655	B.A.C. 6611.....	8.9	1	19.12.25,84	3,702		116.26		
656	ρ ¹ Sagittarii.....	6		19.12.55		2	108.7.34,08	6,274	
657	ρ ² Sagittarii.....	7	1	19.13.2,32	3,497	1	108.34.57,77	6,285	
658	H. C. 36403.....	8.9	2	19.13.13,35	3,518	1	109.24.5,17	6,298	
659	H. C. 36448.....	9	2	19.14.13,68	3,514	1	109.15.46,41	6,383	
660	Piazzi XIX. 85.....			19.14.37		1	93.59.59,05	6,412	
661	B.A.C. 6628.....	6	1	19.15.5,25	3,748		118.9		
662	H. C. 36501.....	8	2	19.15.5,59	3,469		107.29		
663	H. C. 36516.....	8		19.15.35		1	112.51.35,68	6,495	
664	χ ¹ Sagittarii.....	6.7	3	19.16.4,93	3,655	1	114.47.45,14	6,538	
665	χ ² Sagittarii.....	7.8	1	19.16.11,64	3,652		114.42		
666	χ ³ Sagittarii.....	7		19.16.21		2	114.15.9,40	6,558	
667	H. C. 36562.....	8.9	1	19.16.40,16	3,600		112.44		
668	H. C. 36585.....	9	2	19.16.58,24	+3,551	1	110.50.20,40	-6,611	

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
669	50 Sagittarii.....	6		19.17.19		1	112. 4. 9,08	-6,638	
670	H. C. 36613.....	9	1	19.17.37,62	+3,552		110.53		
671	H. C. 36618.....		1	19.17.48,65	3,641		114.20		
672	H. C. 36657.....	8	1	19.18.40,24	3,545		110.40		
673	H. C. 36666.....			19.18.53		1	108.38.50,72	6,769	
674	H. C. 36678.....	9	1	19.19.10,65	3,549	1	110.48.55,93	6,792	
675	B.A.C. 6658.....	8.9	4	19.19.18,10	3,495		108.40		
676	π Draconis.....			19.19.53		1	24.34.33,79	6,850	
677	π Draconis R.....					1	33,41		
678	B.A.C. 6666.....	7	1	19.20.31,60	3,718	2	117.17.21,87	6,903	No. 678. There is no star in the place of H. C. 36733.
679	H. C. 36777.....	8.9	1	19.21.11,59	3,524	2	109.51.36,08	6,958	
680	H. C. 36786.....	8	1	19.21.18,87	3,519		109.42		
681	H. C. 36810.....	8.9	3	19.21.54,17	3,493		108.38		No. 681. The R.A. by H. C. is about 4' less.
682	B.A.C. 6671.....	6.7	1	19.21.56,20	3,567		111.37		
683	H. C. 36828.....	8.9	1	19.22. 7,77	3,441		106.29		
684	H. C. 36835.....	8	1	19.22.26,97	3,560		111.21		No. 684. The R.A. by H. C. is 1'.6 greater. Probably the observed R.A. is 1' in defect. See the observation.
685	H. C. 36857.....	8		19.22.52		1	109.41.53,80	7,095	
686	H. C. 36911.....	7.8	1	19.23.48,56	3,430		106. 4		
687	H. C. 36929.....	9.10	3	19.24.22,34	3,514		109.35		
688	H. C. 36941.....	9	1	19.24.47,03	3,498		108.56		
689	H. C. 36947.....	9	1	19.24.56,51	3,504	1	109.10.43,90	7,265	
690	H. C. 36976.....	7.8	2	19.25.34,85	3,442		106.38		
691	H. C. 36999.....	8	1	19.26. 8,14	3,501	3	109. 5.24,24	7,361	No. 691. The same as H. C. 37001. There are not two stars.
692	h^1 Sagittarii.....	6	1	19.26.51,37	3,651	1	115. 2.39,76	7,421	
693	h^2 Sagittarii.....	6.7	3	19.27.30,78	3,655		115.13		No. 693. The magnitudes recorded on the three days were 6.7, 7 and 7; on two of the days the sky was cloudy.
694	B.A.C. 6707.....	7.8	1	19.27.37,91	3,502		109.11		
695	H. C. 37079.....	8	1	19.28. 1,19	3,500		109. 7		
696	B.A.C. 6710.....	7.8	1	19.28.17,47	3,487		108.34		
697	κ Aquilæ.....			19.28.46		1	97.21.32,33	7,575	
698	H. C. 37202.....	8		19.30.30		3	107.14.53,33	7,717	
699	H. C. 37204. <i>nf.</i>	8.9	3	19.30.31,90	3,454		107.15		No. 699. The other star is H. C. 37202 and 37203.
700	53 Sagittarii.....	6.7	2	19.30.44,81	3,614		113.46		No. 700. This star was judged to be rather brighter than B.A.C. 6727.
701	H. C. 37221.....	7.8		19.30.57		1	112.24. 8,94	7,751	
702	B.A.C. 6727.....	6.7	2	19.31. 2,26	3,613		113.46		
703	e^1 Sagittarii.....	7.8	2	19.32. 4,31	3,438		106.38		
704	H. C. 37306.....	9.10	1	19.32.54,87	3,547		111.11		
705	B.A.C. 6738.....	8	1	19.33.12,61	3,649		115.12		
706	H. C. 37336.....	8.9	1	19.33.29,03	3,636		114.44		
707	e^2 Sagittarii.....	6	2	19.33.52,81	3,433		106.28		
708	H. C. 37383.....			19.34.36		1	115. 4. 6,13	8,045	
709	H. C. 37420.....	7.8	1	19.35.30,77	3,595	1	113.12.37,17	8,118	
710	H. C. 37433.....	8		19.35.41		1	112.54. 0,53	8,133	
711	H. C. 37447.....	8.9	3	19.35.48,77	3,460		107.40		
712	H. C. 37439.....	9.10	1	19.35.55,47	3,713		117.45		
713	H. C. 37481.....	8	1	19.37. 0,43	3,709		117.38		
714	H. C. 37491.....	8	1	19.37.15,81	3,645		115.14		
715	H. C. 37549.....	8		19.38.29		1	115.59.28,88	8,355	
716	γ Aquilæ.....		24	19.39. 4,88	2,855		79.45		
717	H. C. 37662.....	9		19.41.15		1	113. 9.11,69	8,575	
718	α Aquilæ.....		28	19.43.24,92	2,929		81.31		
719	H. C. 37769.....	7.8		19.43.58		1	115.50.39,55	8,790	
720	ω Sagittarii.....	7	1	19.46.35,08	3,671		116.42		
721	B.A.C. 6831.....	8	2	19.47.39,36	3,588		113.27		
722	β Aquilæ.....		22	19.47.53,78	2,950	1	83.57.59,83	8,632	
723	β Aquilæ R.....					1	59,22		
724	g Sagittarii.....	7	1	19.49.23,03	3,409		105.53		
725	H. C. 37959.....	8		19.49.51		1	108.47. 2,16	9,249	No. 725. This is Argelander Z. 244 No. 33.
726	H. C. 38022.....	11		19.49.59		1	113.44.25,40	9,260	The R.A. of H. C. is 1 ^m in defect.
727	B.A.C. 6850.....	7	3	19.50.37,01	3,564		112.37		No. 726. The sky was too cloudy for the estimation of magnitude.
728	H. C. 38081.....	9	1	19.51.30,61	3,531	1	111.15.49,19	9,378	
729	H. C. 38096.....	8.9	1	19.51.42,53	3,507	1	110.15.55,97	9,395	
730	H. C. 38104.....	7	1	19.51.55,43	3,416		106.18		
731	H. C. 38113.....	8.9	1	19.52.14,51	3,544	1	111.52.26,45	-9,435	
732	H. C. 38161.....	7.8	1	19.53.11,45	3,452		107.58		
733	H. C. 38164.....	8	1	19.53.15,21	3,488		109.31		
734	H. C. 38192.....	8.9	2	19.53.58,55	3,414		106.17		
735	H. C. 38216.....	7	1	19.54.30,16	3,578		113.22		
736	B.A.C. 6880.....	7	1	19.55. 0,24	+3,403		105.50		

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
737	H. C. 38240.....	9.10	1	19.55.6.41	+ 3,661		116.45		
738	H. C. 38250.....	7		19.55.31		2	112.36.29.66	- 9,686	
739	B.A.C. 6888.....	7.8	1	19.55.58.89	3,672	1	117.14.1.95	9,723	
740	B.A.C. 6889.....	8	1	19.56.4.69	3,537	1	111.44.5.26	9,730	
741	H. C. 38290.....	9.10	1	19.56.17.97	3,477		109.12		
742	H. C. 38314.....	8.9	2	19.56.46.06	3,423		106.48		
743	H. C. 38334.....	9	2	19.57.12.86	3,409	1	106.10.37.88	9,816	
744	H. C. 38339.....	8	2	19.57.18.89	3,475		109.8		
745	H. C. 38398.....	9	3	19.58.34.58	3,494	1	110.0.11.47	9,920	
746	H. C. 38396.....	8.9		19.58.39		1	114.18.43.92	9,924	
747	B.A.C. 6903.....	7.8	2	19.59.29.25	3,475		109.14		
748	H. C. 38434.....	8.9	2	19.59.36.07	3,587		114.1		No. 748. H. C. 38434 and 38436 appear to be the same star.
749	B.A.C. 6907.....	7	3	19.59.57.70	3,391	1	105.27.36.05	10,025	No. 749. The proper motion by comparison with Piazzì XIX. 404 is +0".15. That of B.A.C. is +0".27.
750	H. C. 38462.....	8.9	3	20.0.17.25	3,399		105.51		No. 751. The proper motion of B.A.C. in N.P.D. is not confirmed by a comparison with Piazzì XIX. 410.
751	B.A.C. 6914.....	7		20.0.44		2	111.1.37.17	10,033	
752	H. C. 38503.....	8.9		20.1.0		1	108.46.59.95	10,104	
753	H. C. 38517.....	9	1	20.1.22.49	3,618		115.22		
754	B.A.C. 6923.....	7.8	3	20.1.40.07	3,486		109.49		
755	ρ Draconis.....			20.2.7		1	22.33.23.38	10,187	
756	ρ Draconis R.....					1	25.00		
757	* (Mag. 8.9).....			20.3.42		1	113.53.9.37	10,307	No. 757. The magnitude is taken from Argelander Z. 240 No. 81.
758	H. C. 38618.....	9	3	20.3.43.37	3,611	3	115.14.0.33	10,309	
759	H. C. 38635.....	9.10	2	20.4.4.90	3,613		115.19		
760	H. C. 38705.....	8		20.5.23		2	107.7.4.92	10,433	
761	H. C. 38740.....	8.9	3	20.5.58.81	3,478	1	109.39.38.42	10,479	
762	H. C. 38765.....	8	3	20.6.37.16	3,425		107.18		
763	B.A.C. 6953.....	7.8	2	20.7.28.31	3,412	1	106.45.2.12	10,588	
764	H. C. 38839.....	8.9	1	20.8.15.68	3,523		111.47		
765	H. C. 38863.....	8.9		20.9.6		1	114.49.56.79	10,710	
766	H. C. 38876.....	7	1	20.9.20.24	3,453		108.44		
767	α^2 CAPRICORN.....		17	20.9.40.40	3,335		103.1		
768	H. C. 38917.....	8.9	2	20.9.55.34	3,581		114.22		
769	H. C. 38932.....	8	1	20.10.4.93	3,444	1	108.19.22.19	10,782	
770	H. C. 38974.....	9		20.11.22		1	115.40.47.70	10,878	
771	B.A.C. 6987.....	7		20.11.44		1	110.6.57.23	10,904	
772	B.A.C. 6992.....	7	2	20.12.17.34	3,376		105.15		
773	β Capricorni.....	3.4	3	20.12.31.40	3,376	1	105.15.13.50	10,961	
774	H. C. 39031.....	9	2	20.12.32.72	3,568		113.57		
775	H. C. 39095.....	8.9	3	20.13.49.99	3,397		106.18		
776	H. C. 39125.....	9	1	20.14.40.28	3,395	1	106.16.8.89	11,119	
777	B.A.C. 7009.....	8	1	20.14.59.16	3,363		104.44		No. 777. The R.A. is 0".56 less than that of B.A.C., but agrees pretty well with Piazzì's.
778	H. C. 39148.....	8.9		20.15.10		1	104.30.2.71	11,154	No. 779. The magnitude was estimated under unfavorable circumstances.
779	H. C. 39154.....	10.11	1	20.15.29.16	3,531		112.32		
780	B.A.C. 7016.....	7.8	1	20.15.47.86	3,359		104.36		
781	H. C. 39172.....	8		20.15.57		1	107.29.37.45	11,211	
782	B.A.C. 7019.....	7.8	1	20.16.21.27	3,472		109.55		
783	H. C. 39200.....	9	1	20.16.42.61	3,521		112.9		
784	H. C. 39210.....	8.9	3	20.16.50.02	3,373		105.18		
785	H. C. 39259.....	10	1	20.18.3.59	3,500		111.18		
786	*.....	8	1	20.18.8.59	3,500		111.19		No. 786. As there is no star of Mag. 8 near H. C. 39259, this is probably the H. C. star with an error of 5' in the observation.
787	π Capricorni.....	6.7	1	20.18.40.35	3,443		108.42		
788	Bessel xx. 464.....	8.9		20.18.49		3	104.2.8.18	11,419	
789	B.A.C. 7039.....	7.8	2	20.19.30.64	3,574		114.39		
790	H. C. 39350.....	8	3	20.20.13.02	3,500	1	111.23.50.86	11,520	
791	B.A.C. 7049.....	7.8		20.20.39		1	112.53.18.07	11,551	
792	H. C. 39425.....	9.10	1	20.22.6.04	3,404		107.3		
793	H. C. 39450.....	9		20.22.47		1	108.35.17.16	11,702	
794	H. C. 39471.....	8	3	20.23.19.06	3,585		115.22		
795	B.A.C. 7070.....	8		20.23.25		1	112.40.4.05	11,745	
796	Bessel xx. 588.....	8.9	2	20.23.27.94	3,346		104.17		
797	Bessel xx. 612.....	8		20.24.26		1	104.3.9.27	11,819	
798	H. C. 39567.....	10	1	20.25.29.61	3,458		109.48		No. 798. Too cloudy for estimation of magnitude.
799	Bessel xx. 664.....			20.26.19		1	104.57.20.62	11,951	
800	H. C. 39603.....	8	2	20.26.19.84	3,385	1	106.18.38.51	11,954	
801	B.A.C. 7097.....	6	3	20.26.59.32	3,399		107.2		
802	Bessel xx. 696.....	8		20.27.9		1	103.28.33.63	- 12,010	
803	B.A.C. 7102.....	8	1	20.27.41.56	3,483		111.6		
804	B.A.C. 7113.....	8	1	20.29.8.17	+ 3,561		114.45		

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
805	H. C. 39742.....	8.9	1	20.29.32,82	+ 3,443	3	109.18.56,29	- 12,177	No. 808. The R.A. of B.A.C., which depends on Lacaille, is 1 ^s .64 greater.
806	B.A.C. 7116.....	8	2	20.29.39,35	3,489		111.31		
807	Bessel xx. 779.....	8		20.30.28		2	103.10.53,86	12,242	
808	B.A.C. 7123.....	7	2	20.30.31,44	3,396		107.5		
809	H. C. 39844.....	8.9	2	20.31.42,34	3,344		104.33		
810	H. C. 39854.....	8.9	1	20.32.10,78	3,439		109.18		
811	Bessel xx. 844.....	8	2	20.32.50,47	3,333		104.2		
812	H. C. 39901.....	9	1	20.33.5,84	3,444	1	109.35.31,06	12,424	
813	Bessel xx. 860.....	8		20.33.25		1	104.26.10,76	12,446	
814	H. C. 39926.....	8.9	1	20.33.38,49	3,434	1	109.7.41,68		
815	Bessel xx. 876.....	10		20.34.6		1	104.20.9,07	12,491	No. 827. The place of B.A.C. 7202 agrees with that of H. C. 40124, the fainter star.
816	Bessel xx. 900.....	8		20.35.4		2	105.43.31,25	12,557	
817	H. C. 39981.....	7	1	20.35.16,33	3,447		109.53		
818	H. C. 40019.....	7.8	2	20.36.9,20	3,343		104.44		
819	α Cygni.....			20.36.17		1	45.15.24,36	12,646	
820	α Cygni R.....					1	24,65		
821	Bessel xx. 950.....	6		20.36.57		1	105.34.44,40	12,685	
822	H. C. 40042.....	9.10		20.37.9		1	109.42.53,02	12,699	
823	H. C. 40056.....	8.9	1	20.37.28,67	3,440	2	109.41.0,03	12,722	
824	H. C. 40073.....	8	1	20.37.58,87	3,446		109.59		No. 844. The identity with H. C. 40440 is somewhat uncertain, the noted time of transit differing from the R.A. of H. C. by 9 ^s . It was ascertained (1854 Nov. 9) that there is no star in the neighbourhood of H. C. 40440.
825	B.A.C. 7195.....	9	1	20.39.27,47	3,514		113.24		
826	H. C. 40115.....	8	2	20.39.35,05	3,440	4	109.48.38,52	12,864	
827	H. C. 40125.....	9	1	20.39.50,79	3,418	1	108.45.12,58	12,880	
828	H. C. 40152.....	8	1	20.40.44,62	3,418		108.46		
829	B.A.C. 7209.....	6	1	20.40.46,43	3,414	1	108.35.20,24	12,943	
830	Bessel xx. 1068....	8.9	1	20.41.34,50	3,328	1	104.11.54,93	12,997	
831	H. C. 40197.....	8		20.42.9		1	106.4.7,74	13,034	
832	B.A.C. 7221.....	8	2	20.42.22,04	3,307		103.6		
833	Bessel xx. 1114....	8.9	1	20.43.12,19	3,329		104.19		No. 871. The R.A. is 0 ^s .64 less than that of B.A.C., but agrees well enough with Piazzini's.
834	H. C. 40257.....	8		20.43.38		1	110.12.19,16	13,133	
835	H. C. 40260.....	9		20.43.50		1	110.5.31,68	13,147	
836	B.A.C. 7237.....	7	1	20.44.9,36	3,527		114.21		
837	B.A.C. 7238.....	8	1	20.44.10,74	3,318		103.46		
838	H. C. 40311.....	6.7		20.44.55		1	109.40.47,94	13,219	
839	Bessel xx. 1157....	8.9	2	20.45.11,10	3,339	2	104.59.12,78	13,235	
840	19 Capricorni.....	7		20.46.17		1	108.29.30,58	13,307	
841	Bessel xx. 1203....	9		20.47.3		1	103.50.8,47	13,358	
842	H. C. 40386.....	7.8	2	20.47.9,52	3,417		109.9		No. 871. The R.A. is 0 ^s .64 less than that of B.A.C., but agrees well enough with Piazzini's.
843	H. C. 40391.....	7.8	1	20.47.16,62	3,338		107.41		
844	H. C. 40440.....	9.10		20.48.17		1	105.25.45,71	13,438	
845	H. C. 40465.....	9		20.49.3		1	112.7.54,65	13,489	
846	B.A.C. 7263.....	7	1	20.49.13,12	3,365		106.37		
847	Bessel xx. 1278....	8	1	20.49.46,27	3,290		102.32		
848	Bessel xx. 1291....	7.8	3	20.50.14,85	3,315		103.57		
849	Bessel xx. 1303....	9	1	20.50.45,95	3,312		103.48		
850	8 Aquarii.....	6.7		20.51.37		3	103.38.7,61	13,717	
851	H. C. 40622.....	8		20.52.39		1	113.39.53,30	13,719	No. 871. The R.A. is 0 ^s .64 less than that of B.A.C., but agrees well enough with Piazzini's.
852	Bessel xx. 1358....	8.9		20.52.48		1	102.2.51,90	13,728	
853	9 Aquarii.....	6.7	2	20.52.48,74	3,316	1	104.7.0,13	13,730	
854	Bessel xx. 1370....	8.9	1	20.53.22,38	3,315	1	104.5.37,26	13,766	
855	Bessel xx. 1394....	8	1	20.54.9,36	3,295		103.2		
856	Bessel xx. 1419....	7.8		20.55.19		1	103.26.35,75	13,889	
857	H. C. 40744.....	8	1	20.55.30,02	3,397	1	108.42.19,17	13,900	
858	B.A.C. 7312.....	7	3	20.56.22,54	3,378	1	107.45.34,01	13,955	
859	Bessel xx. 1450....	8		20.56.35		2	105.8.27,07	13,969	
860	H. C. 40797.....	8.9	2	20.57.4,42	3,449		111.33		No. 871. The R.A. is 0 ^s .64 less than that of B.A.C., but agrees well enough with Piazzini's.
861	H. C. 40803.....	8.9	1	20.57.15,83	3,336		105.30		
862	Bessel xx. 1486....	9		20.58.5		1	103.36.14,37	14,063	
863	B.A.C. 7325.....	7.8	1	20.58.5,12	3,432		110.46		
864	Bessel xx. 1491....	7	1	20.58.18,82	3,310		104.6		
865	H. C. 40863.....	8.9	2	20.58.41,15	3,295		103.17		
866	H. C. 40860.....	8.9	1	20.58.42,13	3,437		111.6		
867	H. C. 40866.....	8		20.58.49		1	106.20.35,55	14,108	
868	Bessel xx. 1501....	8		20.58.50		1	103.47.48,93	14,109	
869	H. C. 40877.....	9	1	20.59.13,15	3,427	1	110.38.20,24	14,068	
870	H. C. 40918.....	7.8	2	20.59.58,58	3,297		103.29		No. 871. The R.A. is 0 ^s .64 less than that of B.A.C., but agrees well enough with Piazzini's.
871	26 Capricorni.....	7	1	21.0.38,82	3,429	2	110.48.1,59	- 14,221	
872	Bessel xx. 1568....	6.7	1	21.1.15,14	+ 3,318		104.44		

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
873	H. C. 40967.....	8.9	1	21. 1. 16.68	+ 3,472		113. 8		
874	✓ Aquarii.....	7		21. 1. 22		1	101. 58. 47.25	- 14,265	
875	H. C. 40994.....	8	1	21. 1. 44.51	3,345		106. 19		
876	H. C. 41000.....	8	2	21. 1. 55.19	3,367		107. 34		
877	Bessel xxi. 26.....	8		21. 2. 35		2	102. 20. 25.98	14,340	
878	B.A.C. 7352.....	7	2	21. 3. 20.44	3,322		105. 5		
879	H. C. 41078.....	8.9	1	21. 3. 59.23	3,439	2	111. 37. 39.51	14,426	
880	H. C. 41118.....	8	1	21. 4. 48.65	3,270		102. 10		
881	H. C. 41133.....	8	1	21. 5. 22.53	3,419		110. 42		
882	H. C. 41149.....	9	1	21. 5. 35.70	3,276	1	102. 34. 1.51	14,523	
883	H. C. 41163.....	7		21. 6. 7		1	101. 13. 30.86	14,554	
884	ζ Cygni.....			21. 6. 31		1	60. 23. 23.00	14,520	
885	ζ Cygni R.....					1	23.69		
886	H. C. 41200.....	7.8		21. 6. 48		1	105. 44. 53.77	14,596	
887	B.A.C. 7378.....	7		21. 8. 5		2	110. 47. 51.76	14,672	
888	Bessel xxi. 188.....	7.8	2	21. 8. 57.13	3,295	1	103. 54. 23.50	14,725	No. 887. The proper motion by comparison with Piazzì XXI. 41, agrees nearly with that of B.A.C.
889	H. C. 41317.....	7.8	1	21. 9. 28.62	3,339		106. 31		
890	Bessel xxi. 194.....	10		21. 9. 16		1	104. 2. 46.54	14,744	
891	30 Capricorni.....	7		21. 9. 29		1	108. 36. 48.38	14,755	
892	Bessel xxi. 239.....	7	1	21. 11. 3.63	3,289	1	103. 40. 51.91	14,850	
893	H. C. 41400.....	7	1	21. 11. 52.35	3,296		104. 8		
894	Bessel xxi. 265.....	8.9		21. 11. 57		1	101. 6. 25.96	14,901	
895	B.A.C. 7400.....	7.8	2	21. 12. 27.95	3,421		111. 27		
896	Bessel xxi. 276.....	7.8	1	21. 12. 31.70	3,285		103. 31		
897	Bessel xxi. 294.....	8.9		21. 13. 10		1	105. 47. 34.76	14,971	
898	Bessel xxi. 304.....	9		21. 13. 24		2	102. 16. 20.51	14,986	
899	H. C. 41483.....	8	2	21. 13. 56.81	3,317		105. 34		
900	H. C. 41514.....			21. 14. 50		1	110. 19. 17.53	15,069	
901	Bessel xxi. 346.....	8	1	21. 15. 1.47	3,245		101. 14		
902	Bessel xxi. 348.....	7		21. 15. 5		1	104. 9. 22.96	15,083	
903	18 Aquarii.....		1	21. 15. 55.22	3,282	1	103. 31. 20.11	15,132	
904	H. C. 41580.....	9	1	21. 16. 28.84	3,263		102. 25		
905	Bessel xxi. 383.....	10		21. 16. 41		1	105. 0. 31.01	15,175	
906	Bessel xxi. 389.....	8	1	21. 16. 56.89	3,290	2	104. 8. 24.28	15,190	
907	19 Aquarii.....	7		21. 17. 6		1	100. 23. 18.10	15,199	
908	Bessel xxi. 397.....	9		21. 17. 11		1	100. 32. 29.41	15,203	
909	Bessel xxi. 416.....	8.9		21. 18. 3		2	104. 13. 16.93	15,253	
910	Bessel xxi. 418.....	7.8	1	21. 18. 12.36	3,267		102. 44		
911	Bessel xxi. 422.....	7	1	21. 18. 16.95	3,248		101. 34		
912	*.....	8	1	21. 18. 57.56	3,400		110. 51		No. 912. By Equatorial observations Nov. 9, 1854, this star was ascertained to be the preceding and brighter of two, and is therefore Argelander Z. 255 No. 21. H. C. 41683 agrees with No. 21 in N.P.D. and with No. 22 in R.A.
913	B.A.C. 7451.....	8	1	21. 19. 27.17	3,259		102. 19		
914	B.A.C. 7459.....	7.8		21. 20. 3		1	102. 13. 13.87	15,365	
915	B.A.C. 7463.....	6.7		21. 21. 31		1	109. 48. 13.34	15,448	
916	H. C. 41785.....	9		21. 22. 13		1	105. 5. 6.87	15,488	
917	β Aquarii.....		23	21. 23. 36.38	3,168	1	96. 13. 57.38	15,595	
918	Bessel xxi. 562.....	9		21. 24. 10		1	101. 11. 25.38	15,595	
919	Bessel xxi. 572.....	8		21. 24. 28		1	101. 12. 34.17	15,611	
920	Bessel xxi. 592.....	8		21. 25. 20		1	104. 6. 56.10	15,659	
921	Bessel xxi. 599.....	9.10		21. 25. 34		1	99. 47. 59.94	15,673	
922	H. C. 41941.....	8.9	1	21. 26. 19.09	3,327		107. 11		
923	H. C. 41984.....	8.9	1	21. 27. 5.68	3,362		109. 26		
924	Bessel xxi. 655.....	8.9	2	21. 27. 23.48	3,253		102. 28		
925	Bessel xxi. 670.....	9		21. 28. 10		1	104. 39. 2.17	15,813	
926	H. C. 42043.....	8.9	1	21. 28. 29.92	3,277		104. 8		
927	Bessel xxi. 686.....	9.10		21. 28. 51		1	102. 5. 8.55	15,849	
928	Bessel xxi. 695.....	8	1	21. 29. 10.77	3,248		102. 8		
929	Bessel xxi. 699.....	10		21. 29. 25		1	103. 35. 5.93	15,880	
930	Bessel xxi. 708.....	8		21. 29. 52		1	99. 22. 19.18	15,903	
931	B.A.C. 7517.....	7	1	21. 29. 56.94	3,298		105. 35		
932	H. C. 42121.....	7	1	21. 30. 22.45	3,371		110. 18		
933	Bessel xxi. 739.....	8	1	21. 31. 0.65	3,283		104. 44		
934	Bessel xxi. 752.....	8.9	1	21. 31. 23.14	3,228	1	101. 0. 24.30	15,984	
935	γ Capricorni.....	5.6	1	21. 31. 43.08	3,322	1	107. 20. 30.34	16,002	
936	Bessel xxi. 796.....	7.8		21. 32. 54		1	99. 49. 28.10	16,064	
937	H. C. 42245.....	7	1	21. 33. 34.95	3,328		107. 56		
938	Bessel xxi. 818.....	8		21. 33. 50		2	102. 56. 5.12	- 16,112	No. 937. The R.A. does not well accord with that of H. C. It agrees with Argelander Z. 256 No. 46.
939	α Capricorni.....		2	21. 34. 13.30	3,353		109. 33		
940	Bessel xxi. 828.....	10	1	21. 34. 27.09	+ 3,250		102. 44		

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
941	Bessel xxi. 835.....	8.9	1	21.34.33,14	+3,249		102.41		
942	H. C. 42307.....	8.9	1	21.34.58,79	3,210		100.1		
943	Bessel xxi. 861.....	9		21.35.27		2	101.49.31,31	-16,197	
944	Bessel xxi. 902.....	9		21.37.6		1	104.22.3,27	16,281	
945	Bessel xxi. 906.....	9	1	21.37.15,38	3,270		104.20		
946	Bessel xxi. 914.....	9		21.37.34		1	104.1.56,85	16,306	
947	H. C. 42407.....	7.8	1	21.38.5,96	3,331	1	108.36.45,90	16,332	
948	λ Capricorni.....	6	1	21.38.24,17	3,236		102.3		
949	δ Capricorni.....	3.4	2	21.38.42,01	3,304		106.48		
950	Bessel xxi. 943.....	9		21.38.49		1	98.37.51,82	16,367	
951	Bessel xxi. 950.....	8		21.39.16		1	103.49.3,12	16,391	
952	Bessel xxi. 995.....	8.9	1	21.41.32,27	3,191	1	99.0.45,82	16,504	
953	H. C. 42558.....	9.10		21.42.43		1	98.53.48,28	16,563	
954	Bessel xxi. 1033....	7.8	2	21.43.0,69	3,213	1	100.44.30,95	16,577	
955	Bessel xxi. 1025....	8.9		21.43.2		1	98.36.40,24	16,579	
956	B.A.C. 7608.....	6	2	21.43.18,22	3,334		109.19		
957	Bessel xxi. 1036....	8		21.43.34		1	98.6.29,19	16,606	
958	μ Capricorni.....	6	2	21.45.3,53	3,259		104.16		
959	Bessel xxi. 1087....	9		21.46.10		2	102.4.24,73	16,732	
960	B.A.C. 7630.....	7	1	21.46.46,32	3,281		105.58		
961	Bessel xxi. 1106....	8.9	1	21.46.53,78	3,236		102.41		
962	Bessel xxi. 1126....	8	2	21.47.55,90	3,262	1	104.44.55,22	16,817	
963	B.A.C. 7640.....	7.8	1	21.49.33,81	3,275	1	105.50.22,42	16,895	
964	Bessel xxi. 1192....	9	1	21.50.27,39	3,232		102.42		
965	Bessel xxi. 1199....	9		21.50.59		1	105.13.40,38	16,960	
966	H. C. 42351.....	8	1	21.51.12,42	3,192		99.41		
967	Bessel xxi. 1253....	8.9	2	21.53.33,21	3,229		102.43		
968	Bessel xxi. 1300....	7.8		21.55.58		1	103.44.50,32	17,189	
969	α Aquarii.....		30	21.58.1,63	3,083	2	91.3.4,96	17,289	
970	ι Aquarii.....	4.5		21.58.16		1	104.35.59,61	17,292	
971	Bessel xxi. 1361....	9		21.58.49		1	101.8.29,82	17,317	
972	B.A.C. 7697.....	7		21.59.16		1	101.10.53,96	17,336	
973	Bessel xxi. 1401....	8		22.0.35		1	99.1.43,20	17,394	
974	Bessel xxi. 22.....	8		22.1.43		1	97.7.53,01	17,443	
975	H. C. 43204.....	9	2	22.2.1,92	3,256		105.44		
976	ε² Aquarii.....	6	1	22.2.32,94	3,214		102.18		
977	Bessel xxi. 49.....	9		22.3.8		1	98.45.24,40	17,503	
978	Bessel xxi. 91.....	8		22.4.59		1	104.36.51,51	17,582	
979	ζ Cephei.....			22.5.37		1	32.32.29,31	17,608	
980	ζ Cephei R.....					1	29,73	17,608	
981	H. C. 43363.....	6	2	22.6.27,28	3,259		106.33		
982	Bessel xxi. 130.....	8		22.6.47		1	97.8.50,35	17,657	
983	Bessel xxi. 148....	9		22.7.46		1	96.24.47,02	17,698	
984	Bessel xxi. 164....	8		22.8.18		1	104.47.40,74	17,720	
985	Bessel xxi. 167....	9		22.8.25		1	102.24.56,00	17,725	
986	Bessel xxi. 175....	7.8		22.8.42		1	102.23.52,66	17,736	
987	θ Aquarii.....		1	22.8.51,70	3,164		93.32		
988	Bessel xxi. 197....	9	1	22.9.49,06	3,185		100.30		
989	Bessel xxi. 231....	8		22.11.36		1	100.33.19,60	17,854	
990	Bessel xxi. 238....	8		22.11.59		1	94.49.15,87	17,868	
991	Bessel xxi. 243....		1	22.12.12,28	3,210		102.59		
992	ρ Aquarii.....		1	22.12.15,00	3,162		98.35		
993	H. C. 43567.....	8.9	1	22.12.22,34	3,236		105.19		No. 993. The R.A. of H. C. is about 1° greater.
994	Bessel xxi. 259....	7.8	1	22.12.53,11	3,172	1	99.31.17,69	17,904	
995	Bessel xxi. 266....	9.10		22.13.7		1	97.43.22,97	17,913	
996	Bessel xxi. 267....	9.10		22.13.14		1	95.52.21,03	17,918	
997	Bessel xxi. 300....	8.9	1	22.14.46,79	3,196		102.0		
998	Bessel xxi. 304....	9		22.15.2		1	104.58.18,93	17,988	
999	H. C. 43862.....	9	1	22.20.44,57	3,241		106.55		
1000	Bessel xxi. 467....	8.9		22.21.57		1	99.11.22,72	18,247	
1001	H. C. 43946.....	8		22.22.52		1	105.20.18,57	18,281	
1002	Bessel xxi. 493....	6.7	2	22.23.23,06	3,141		97.19		
1003	58 Aquarii.....	6.7	1	22.23.40,77	3,183		101.41		
1004	Bessel xxi. 506....	8		22.24.6		1	104.22.9,50	18,324	
1005	Bessel xxi. 515....	8	1	22.24.27,01	3,183		101.43		
1006	Bessel xxi. 519....	7	2	22.24.37,59	3,139		97.15		
1007	Bessel xxi. 521....		1	22.24.45,50	+3,092		92.17		
1008	Bessel xxi. 526....	9		22.25.0		2	100.2.50,82	-18,357	

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
1009	Bessel xxii. 531....	8.9		22.25.11		1	99.59.15,58	-18,364	
1010	Bessel xxii. 548....	7.8	1	22.26.31,10	+3,123	1	95.39.44,63	18,393	
1011	Bessel xxii. 556....	8.9	1	22.26.23,56	3,165		100.5		
1012	Bessel xxii. 575....	9		22.27.16		1	99.10.41,39	18,435	
1013	Bessel xxii. 584....	8		22.27.46		1	103.39.4,72	18,453	
1014	Bessel xxii. 589....	8		22.27.58		1	98.7.6,49	18,460	
1015	Bessel xxii. 599....	8	5	22.28.26,75	3,125		95.56		
1016	Bessel xxii. 607....	8.9		22.28.50		1	102.59.38,12	18,489	
1017	Bessel xxii. 612....	10		22.28.59		1	100.10.24,91	18,494	
1018	Bessel xxii. 617....	7.8	4	22.29.5,29	3,185		102.31		
1019	Bessel xxii. 629....	8.9		22.29.52		2	104.9.8,65	18,524	
1020	Bessel xxii. 659....	8	1	22.30.59,71	3,168		100.53		
1021	64 Aquarii.....	6.7	2	22.31.19,26	3,167	1	100.48.42,84	18,572	
1022	Bessel xxii. 669....	7.8	1	22.31.26,00	3,109		94.23		
1023	Bessel xxii. 675....	8	1	22.31.36,24	3,145		98.23		
1024	H. C. 44292.....	9	1	22.31.51,36	3,208		105.20		
1025	B.A.C. 7899.....	7	1	22.32.19,75	3,135		97.19		
1026	Bessel xxii. 694....	9		22.32.24		1	97.35.9,77	18,608	
1027	Bessel xxii. 700....	8.9		22.32.54		1	104.38.26,76	18,624	
1028	Bessel xxii. 708....	7	2	22.33.25,54	3,185	1	103.0.59,49	18,640	
1029	ζ Pegasi.....			22.33.56		2	79.57.19,85	18,667	
1030	ζ Pegasi R.....					1	18,75		
1031	Bessel xxii. 723....		1	22.34.2,90	3,165		100.55		
1032	Bessel xxii. 735....	8	1	22.34.28,80	3,136		97.40		
1033	Bessel xxii. 748....	8		22.35.1		1	103.7.18,48	18,691	No. 1033. This is H. C. 44413, the N.P.D. of which should be 103°.22'.30",6; that of H. C. 44409, which is Bessel xxii. 747, should be 103°.23'.20",7.
1034	Bessel xxii. 752....	8	1	22.35.4,05	3,155		99.56		
1035	H. C. 44443.....	8		22.35.31		1	97.10.42,22	18,708	
1036	Bessel xxii. 769....	9		22.35.56		1	97.11.40,68	18,721	
1037	η Pegasi.....		1	22.35.55,76	2,800	3	60.33.61,03	18,721	
1038	η Pegasi R.....					3	59,28		
1039	Bessel xxii. 771....	9.10		22.36.3		1	99.14.50,62	18,725	
1040	Bessel xxii. 776....	9	1	22.36.19,96	3,153		99.51		
1041	Bessel xxii. 780....	10		22.36.34		1	99.17.50,19	18,740	
1042	H. C. 44479.....	8	3	22.36.57,24	3,192		104.26		
1043	B.A.C. 7935.....	7	2	22.37.24,55	3,157		100.26		
1044	Bessel xxii. 797....	7		22.37.26		1	103.47.51,52	18,767	
1045	Bessel xxii. 816....	6.7	3	22.38.16,58	3,169		101.57		
1046	Bessel xxii. 822....	8		22.38.58		1	96.43.40,04	18,814	
1047	Bessel xxii. 832....	7	1	22.39.24,25	3,099		93.30		
1048	H. C. 44564.....	8	1	22.39.29,52	3,131		97.32		
1049	B.A.C. 7951.....	7.8	1	22.40.2,79	3,111	2	95.0.38,37	18,847	No. 1049. This is Bessel xxii. 849. The sp. star, which is Bessel xxii. 848, was observed with the transit.
1050	H. C. 44601.....	9	1	22.40.7,69	3,097		93.22		
1051	Bessel xxii. 864....	9.10		22.41.1		1	99.44.17,99	18,876	
1052	Bessel xxii. 870....	8		22.41.11		1	94.11.0,59	18,881	
1053	Bessel xxii. 881....	8	3	22.41.28,64	3,167	1	102.8.49,03	18,889	
1054	Bessel xxii. 885....	9		22.41.48		1	101.51.51,81	18,899	
1055	Bessel xxii. 894....	8	3	22.42.10,86	3,159		101.12		
1056	μ Pegasi.....		1	22.42.43,27	2,876		66.11		
1057	Bessel xxii. 910....	8.9	2	22.43.17,58	3,149	1	100.7.22,07	18,942	
1058	Bessel xxii. 914....	11		22.43.24		1	99.27.15,46	18,946	No. 1058. The magnitude is doubtful, the sky being hazy.
1059	H. C. 44694.....	9		22.43.40		1	104.39.32,92	18,953	
1060	ι Cephei.....			22.44.19		1	24.35.34,94	18,971	
1061	ι Cephei R.....					1	33,70		
1062	λ Aquarii.....	5	1	22.44.43,98	3,134		98.22		
1063	Bessel xxii. 933....	6.7	1	22.44.48,58	3,153		100.52		
1064	Bessel xxii. 935....	8.9		22.44.51		1	103.53.59,20	18,986	
1065	Bessel xxii. 937....	7.8	1	22.44.52,83	3,096		93.26		
1066	Bessel xxii. 946....	9		22.45.5		1	101.13.50,73	18,992	
1067	74 Aquarii.....	6	1	22.45.31,45	3,165		102.24		
1068	H. C. 44774.....	8.9	1	22.45.54,32	3,132		98.12		
1069	75 Aquarii.....	8		22.46.9		1	102.59.26,91	19,023	
1070	Bessel xxii. 981....	8		22.47.2		1	100.10.39,40	19,047	
1071	Bessel xxii. 998....	9		22.47.38		1	100.54.57,34	19,063	
1072	Bessel xxii. 1007....	9		22.48.10		1	101.52.7,32	19,078	
1073	Bessel xxii. 1009....	7.8	2	22.48.11,30	3,176		104.22		
1074	Bessel xxii. 1033....	6.7	2	22.49.19,01	+3,099		94.3		
1075	B.A.C. 7993.....	6.7		22.49.28		2	95.36.56,63	19,113	
1076	Bessel xxii. 1036....	8		22.49.37		1	93.57.27,58	-19,117	

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
1077	Bessel xxii. 1049...	8		22. 50. 19		1	96. 29. 34.59	-19,135	
1078	Bessel xxii. 1057...	8		22. 50. 46		1	96. 28. 52.11	19,157	
1079	Bessel xxii. 1083...	7		22. 51. 42		1	93. 41. 35.01	19,171	
1080	Bessel xxii. 1092...	8.9	4	22. 52. 12.88	+ 3,152		101. 46		
1081	B.A.C. 8010.	7	2	22. 52. 26.65	3,137		99. 41		
1082	Bessel xxii. 1120...	9		22. 53. 14		2	100. 21. 34.33	19,211	
1083	H. C. 45028.	8		22. 53. 58		1	94. 39. 1.38	19,228	
1084	*.....	8.9		22. 54. 16		1	94. 39. 39.38	19,235	
1085	Bessel xxii. 1185...	8		22. 56. 4		1	98. 52. 11.88	19,280	
1086	Bessel xxii. 1196...	8.9	1	22. 56. 23.13	3,113	1	96. 35. 13.03	19,287	
1087	Bessel xxii. 1211...	8		22. 56. 59		1	95. 58. 30.05	19,301	
1088	α Pegasi.....		19	22. 57. 14.61	2,983	1	75. 36. 23.64	19,304	
1089	α Pegasi R.....					1	20.61		
1090	ι^4 Aquarii	8		22. 59. 21		1	98. 30. 28.64	19,357	
1091	Bessel xxii. 1258 ..	8.9	1	22. 59. 24.99	3,130	1	99. 37. 43.06	19,358	
1092	Bessel xxii. 1269 ..	8.9		23. 0. 1		1	91. 6. 42.36	19,372	No. 1091. The R.A., being about 1 ^s less than Bessel's, was verified by Equatorial observations Nov. 15, 1854, and found to agree nearly with that of H. C. 45207.
1093	Bessel xxii. 1292 ..	9	1	23. 1. 13.46	3,140		101. 31		
1094	Bessel xxiii. 4.	8	1	23. 1. 17.47	3,090		93. 16		
1095	Bessel xxiii. 7.	8.9		23. 1. 27		1	100. 0. 15.35	19,404	
1096	Bessel xxiii. 18.	9		23. 1. 59		1	97. 54. 29.93	19,416	
1097	Bessel xxiii. 22.	10		23. 2. 16		1	98. 53. 11.18	19,422	
1098	B.A.C. 8073.	7.8	1	23. 2. 50.49	3,110		96. 46		
1099	Bessel xxiii. 38.	7.8		23. 3. 7		1	90. 23. 53.64	19,441	
1100	Bessel xxiii. 51.	7	1	23. 3. 50.03	3,093		93. 55		
1101	Bessel xxiii. 56.	8.9	1	23. 4. 3.12	3,127		99. 50		
1102	H. C. 45395.	9	1	23. 4. 25.23	3,097	1	94. 45. 26.77	19,468	
1103	60 Pegasi.....		1	23. 4. 29.86	2,914		63. 57		
1104	Bessel xxiii. 69.	10		23. 4. 45		1	101. 9. 21.27	19,476	No. 1104. Hazy sky: magnitude doubtful.
1105	Bessel xxiii. 76.	6.7	1	23. 5. 6.46	3,129		100. 23		
1106	Bessel xxiii. 78.	9		23. 5. 14		1	91. 36. 53.22	19,485	
1107	Bessel xxiii. 84.	7.8	2	23. 5. 36.62	3,124	1	99. 43. 45.76	19,493	
1108	Bessel xxiii. 103.	8		23. 6. 10		2	99. 44. 37.72	19,504	
1109	Bessel xxiii. 104.	8.9		23. 6. 10		2	99. 45. 3.98	19,504	
1110	Bessel xxiii. 123.	6.7	1	23. 6. 47.75	3,133		101. 31		
1111	Bessel xxiii. 132.	7.8	2	23. 7. 24.00	3,108		96. 57		
1112	B.A.C. 8094.	6	1	23. 7. 47.54	3,093		94. 19		
1113	ψ^1 Aquarii	5.6	1	23. 7. 58.75	3,123	2	99. 54. 35.19	19,540	
1114	Bessel xxiii. 165.	7.8		23. 8. 57		1	92. 39. 6.99	19,560	
1115	χ Aquarii.....	5.6	1	23. 9. 1.25	3,115		98. 33		
1116	Bessel xxiii. 179.	7.8	1	23. 9. 27.72	3,097		95. 16		
1117	Bessel xxiii. 198.	9		23. 10. 6		1	95. 20. 46.51	19,581	
1118	Bessel xxiii. 209.	8	2	23. 10. 32.89	3,112		98. 16		
1119	ψ^3 Aquarii		1	23. 11. 6.41	3,123		100. 25		
1120	Bessel xxiii. 239.	9	1	23. 11. 48.23	3,122		100. 30		
1121	Bessel xxiii. 260.	8	2	23. 12. 48.51	3,117		99. 45		
1122	B.A.C. 8129.	6.7		23. 12. 54		1	96. 43. 55.46	19,633	
1123	Bessel xxiii. 263.	8		23. 12. 55		2	97. 26. 58.62	19,633	
1124	Bessel xxiii. 265.	8	2	23. 13. 1.00	3,125		101. 22		
1125	H. C. 45758.	8	1	23. 14. 37.21	3,076		91. 14		No. 1125. The R.A. of H. C. is about 1 ^s less.
1126	Bessel xxiii. 300.	8		23. 14. 55		1	91. 58. 41.78	19,668	
1127	Bessel xxiii. 302.	10		23. 14. 57		1	95. 10. 26.87	19,669	No. 1127. Too cloudy for estimation of magnitude.
1128	ι^1 Aquarii		1	23. 15. 2.11	3,170		110. 55		
1129	Bessel xxiii. 309.	7.8		23. 15. 9		1	101. 36. 10.57	19,672	
1130	B.A.C. 8152.	6.7		23. 15. 47		1	90. 32. 14.13	19,683	
1131	Bessel xxiii. 328.	7.8	4	23. 16. 16.05	3,108		98. 23		No. 1131. Bessel's R.A. is about 0 ^s .75 less.
1132	Bessel xxiii. 343.	7		23. 16. 52		1	92. 34. 8.69	19,700	
1133	Bessel xxiii. 350.	9	2	23. 17. 12.33	3,097		96. 2		
1134	Bessel xxiii. 374.	9		23. 18. 29		1	91. 20. 7.52	19,727	
1135	Bessel xxiii. 376.	7	1	23. 18. 45.93	3,102		97. 26		
1136	Bessel xxiii. 377.	8.9	1	23. 18. 46.25	3,116		100. 52		
1137	Bessel xxiii. 379.	8		23. 18. 50		3	96. 3. 45.69	19,732	
1138	Bessel xxiii. 381.	7.8	1	23. 18. 54.98	3,121		101. 52		
1139	κ Piscium		1	23. 19. 11.57	3,069		89. 33		
1140	Bessel xxiii. 390.	7.8	1	23. 19. 27.39	3,085		93. 28		
1141	Bessel xxiii. 399.	7.8	1	23. 19. 59.54	3,066	1	88. 56. 37.38	19,750	
1142	Bessel xxiii. 404.	8	1	23. 20. 17.14	3,080		92. 17		
1143	Bessel xxiii. 427.	7	1	23. 21. 12.12	+ 3,111	1	100. 5. 48.19	19,766	
1144	B.A.C. 8184.	7		23. 21. 44		1	95. 21. 15.53	-19,776	

Reference Number.	Name of Star.	Observed Magnitude.	Number of Obs. of R.A.	Concluded Mean R.A., or, Approximate Mean R.A., Jan. 1, 1849.	Annual Variation in R.A.	Number of Obs. of N.P.D.	Concluded Mean N.P.D., or, Approximate Mean N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.	Notes.
				<i>h. m. s.</i>	<i>s.</i>		<i>° ' "</i>	<i>"</i>	
1145	Bessel xxiii. 442...	8	1	23.21.51,97	+ 3,098		97. 9		
1146	Bessel xxiii. 447...	8	1	23.22.10,75	3,098		97. 6		
1147	Bessel xxiii. 459...			23.22.57		1	89.57.16,45	- 19,793	
1148	Bessel xxiii. 466...	8	1	23.23.10,86	3,093		95.54		
1149	Bessel xxiii. 467...	6.7	1	23.23.13,97	3,097		97. 7		
1150	Bessel xxiii. 471...	9		23.23.17		1	91.25.40,43	19,798	
1151	Bessel xxiii. 559...	7	1	23.27.16,65	3,099		98.31		
1152	Bessel xxiii. 560...	9.10	1	23.27.19,85	3,086	2	94.33. 5,75	19,851	
1153	Bessel xxiii. 566...			23.27.28		1	94.41.21,70	19,853	
1154	B.A.C. 8214.....	7	1	23.27.44,69	3,098		98.17		
1155	Bessel xxiii. 642...	8.9	1	23.31. 3,80	3,082	3	93.47.43,69	19,895	No 1155. Bessel xxiii. 639 is the same star with an error of 5" in the R.A.
1156	Bessel xxiii. 654...	10		23.31.37		1	96.17.47,83	19,901	
1157	Bessel xxiii. 684...	7	1	23.33. 0,90	3,095		98.45		
1158	Bessel xxiii. 697...	8		23.33.35		1	88.22. 5,38	19,922	
1159	ω ² Aquarii.....		1	23.34.53,34	3,111		105.22		
1160	H. C. 46493.....	8.9	1	23.36. 3,97	3,088	1	97. 6.26,78	19,946	
1161	Bessel xxiii. 763...		1	23.37. 1,52	3,089		97.46		
1162	Bessel xxiii. 783...	8	1	23.38.16,04	3,072		90.34		
1163	Bessel xxiii. 797...	8		23.38.52		2	90.18.26,14	19,970	
1164	Bessel xxiii. 808...	7.8	1	23.39.36,39	3,066		87.57		
1165	H. C. 46609.....	7.8		23.39.53		1	95.18. 2,67	19,977	
1166	H. C. 46612.....	9		23.39.56		1	94.22.25,00	19,978	
1167	Bessel xxiii. 830...	9	1	23.40.27,97	3,074		91.37		
1168	B.A.C. 8274.....	6.7	2	23.40.47,03	3,085		97.13		
1169	Bessel xxiii. 862...	7	1	23.41.47,29	3,189		96.23		
1170	H. C. 46672.....	8	1	23.41.59,63	3,077		93.23		
1171	Bessel xxiii. 885...	8	1	23.43.25,18	3,076		93.22		
1172	Bessel xxiii. 893...	8.9	1	23.43.55,54	3,076		93.22		
1173	Bessel xxiii. 896...	9		23.44. 1		1	97.27. 8,35	20,006	
1174	22 Piscium.....	6.7		23.44.14		1	87.54.31,07	20,007	
1175	Bessel xxiii. 907...	8	1	23.44.32,88	3,070		89.20		
1176	φ Pegasi.....		1	23.44.48,45	3,041		71.42		
1177	Bessel xxiii. 961...		1	23.46.50,36	3,076		93.49		
1178	H. C. 46857.....	9	1	23.46.57,56	3,076		94.17		
1179	Bessel xxiii. 973...	8	1	23.47.23,09	3,078		95.31		
1180	Bessel xxiii. 978...	7.8	1	23.47.38,79	3,078		95.45		
1181	H. C. 46908.....	8.9	1	23.48.21,97	3,075		93.31		No. 1181. The R.A. of H. C. is 1",3 greater.
1182	H. C. 46918.....	8	1	23.48.42,61	3,071		90.21		
1183	Bessel xxiii. 1006..	7		23.49. 4		1	86. 6.55,97	20,032	
1184	Bessel xxiii. 1013..	8.9	1	23.49.19,60	3,075	2	93.48.56,69	20,033	
1185	Bessel xxiii. 1016..	8	1	23.49.24,45	3,077		95.18		
1186	Bessel xxiii. 1029..	8	1	23.50. 2,63	3,077		96.18		
1187	Bessel xxiii. 1044..	7.8	1	23.50.39,13	3,075		94.12		
1188	H. C. 47005.....	7.8	1	23.51.12,53	3,068		86.34		
1189	H. C. 47028.....	7	1	23.51.46,80	3,074		93.41		
1190	H. C. 47030.....	7.8	1	23.51.49,54	3,073		92.42		
1191	B.A.C. 8333.....	6.7	1	23.51.56,00	3,076		96.44		
1192	Bessel xxiii. 1078..	7	1	23.52.26,98	3,072		91.12		
1193	Bessel xxiii. 1111..	8	1	23.53.58,19	3,071	2	91. 3.13,75	20,048	
1194	29 Piscium.....	5	1	23.54. 5,21	3,073	1	93.52. 3,43	20,048	
1195	30 Piscium.....	4.5	2	23.54.12,90	3,075		96.51		
1196	Bessel xxiii. 1130..	9.10	1	23.54.39,74	3,074		96.54		
1197	H. C. 47143.....	8.9	2	23.54.51,05	3,074		96. 2		
1198	Bessel xxiii. 1170..	8.9	3	23.56.46,52	3,073		97.48		
1199	Bessel xxiii. 1176..	9		23.56.58		1	91.53.49,11	20,053	
1200	Bessel xxiii. 1179..	7.8	1	23.57. 2,40	3,070		89.18		
1201	H. C. 47222.....	9	1	23.57.26,59	3,071		92.42		
1202	H. C. 47225.....	8	1	23.57.33,97	+ 3,071		92.38		
1203	Bessel xxiii. 1218..	9		23.59. 8		2	88.58.47,61	- 20,055	

APPROXIMATE
RIGHT ASCENSIONS AND NORTH POLAR DISTANCES
OF
ZODIACAL STARS
OBSERVED WITH
THE MURAL CIRCLE,
IN THE YEAR 1849.

Month and Day.	NAME OF STAR.	Seconds of transit over the five wires.					Concluded transit over the mean of the five wires.	Correction of transit-time for known star.		Adopted gaining rate of clock.	Correction for 1 ^h of increase of R.A.	Correction for 1 ^h of increase of N.P.D.	Correction of transit-time for unknown stars.		Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V										
		s.	s.	s.	s.	s.		h. m. s.	m. s.	s.	s.	s.	m. s.	h. m. s.		
Mar. 29	(a) Polaris SP. R....	40,5	6,5	46,0	12,5	40,0	13. 4. 41,10	-	21,24	0,65						B.
	(b) Spica	41,8	58,3	15,0	31,7	48,4	13. 18. 15,04		58,63							B.
Mar. 30	(c) Polaris .....	....	8,0	32,5	....	....	1. 6. 37,13	2.	17,30							B.
Mar. 31	(c)(d) Polaris R.	53,0	26,5	....	....	....	1. 5. 54,75	1.	34,99							B.
Apr. 3	* N.P.D. 71°. 50'.	5,7	23,1	40,2	....	15,0	8. 55. 40,33			1,02	- 0,042	+ 0,018	- 1. 0,05	8. 54. 40,28		B.
	H. C. 17922.....	....	59,1	16,9	34,5	....	8. 58. 16,85						1. 0,04	8. 57. 16,81		B.
	— 18020	0,9	17,3	34,9	52,1	9,7	9. 1. 34,98						1. 0,04	9. 0. 34,94		B.
	— 18141.....	41,0	58,2	15,3	32,8	49,9	9. 5. 15,44						1. 0,03	9. 4. 15,41		B.
	— 18243.....	....	4,9	22,1	40,2	....	9. 8. 22,42						1. 0,05	9. 7. 22,37		B.
	83 Cancri.....	....	15,4	33,1	51,1	....	9. 11. 33,22						1. 0,06	9. 10. 33,16		B.
	α Hydræ.....	....	54,2	11,0	27,8	44,0	9. 21. 10,96	59,76								
	(c) H. C. 19628.....	52,2	10,3	28,1	44,8	2,1	9. 56. 27,50						1. 0,10	9. 55. 27,40		B.
	(e) Regulus.....	47,1	3,8	20,3	37,7	54,6	10. 1. 20,70	59,98								
	H. C. 22180.....	26,9	43,9	1,2	18,5	35,9	11. 37. 1,28						1. 0,14	11. 36. 1,14		B.
	β Leonis.....	48,7	5,8	22,6	39,9	57,1	11. 42. 22,82	1. 0,11								
	* N.P.D. 75°. 25'.	34,2	51,2	9,0	25,7	42,9	11. 46. 8,60						1. 0,10	11. 45. 8,50		B.
	* N.P.D. 72°. 43'.	20,2	37,2	54,6	12,1	29,1	11. 50. 54,64						1. 0,14	11. 49. 54,50		B.
	* N.P.D. 73°. 18'.	0,1	17,1	35,0	52,0	9,6	11. 54. 34,76						1. 0,14	11. 53. 34,62		B.
	H. C. 22700.....	57,6	14,7	31,1	48,9	5,9	11. 58. 31,64						1. 0,13	11. 57. 31,51		B.
	(f) Polaris SP.....	8,5	38,0	16,0	42,0	8,5	13. 6. 10,60	1. 51,25								B.
	Spica.....	42,3	59,1	16,1	32,8	49,4	13. 18. 15,94	59,49								B.
Apr. 5	Bessel ix. 1046...	54,8	11,6	29,2	45,8	3,4	9. 49. 28,96			1,19	- 0,050	+ 0,011	1. 2,02	9. 48. 26,94		B.
	— ix. 1117...	17,1	35,0	51,8	9,1	25,0	9. 52. 51,60						1. 2,02	9. 51. 49,58		B.
	(g) Regulus.....	48,2	5,3	22,1	39,1	55,9	10. 1. 22,12	(1. 1,43)								B.
	* N.P.D. 74°. 35'.	37,9	54,8	12,4	29,5	46,5	10. 12. 12,22						1. 2,06	10. 11. 10,16		T.
	Bessel x. 317.....	55,8	12,5	30,2	46,9	4,2	10. 19. 29,92						1. 2,05	10. 18. 27,87		T.
	ι Leonis.....	36,6	54,1	11,1	28,4	45,2	10. 25. 11,08						1. 2,05	10. 24. 9,03		B.
	(h) Polaris SP.....	9,8	43,5	....	45,5	15,5	13. 6. 14,44	1. 55,22								B.
	Spica.....	44,9	1,9	18,1	35,1	51,9	13. 18. 18,38	1. 1,91								B.
	(i) β Leonis.....	51,0	8,1	25,1	42,2	59,3	11. 41. 25,14	1. 2,11								C.
Apr. 7	α Hydræ.....	42,0	58,7	15,2	31,9	48,7	9. 21. 15,30	1. 4,15		1,04	- 0,043	- 0,004				B.
	* N.P.D. 75°. 31'.	11,8	28,8	45,8	2,8	19,6	9. 41. 45,76						1. 3,88	9. 40. 41,88		B.
	23 Leonis.....	22,7	40,2	56,9	13,9	31,1	9. 43. 56,96						1. 3,89	9. 42. 53,07		B.
	* N.P.D. 75°. 16'.	4,1	20,7	....	55,1	12,0	9. 46. 37,96						1. 3,88	9. 45. 34,08		B.
	Bessel ix. 1046...	....	14,7	32,0	48,8	....	9. 49. 31,85						1. 3,88	9. 48. 27,97		B.
	H. C. 19536.....	13,2	30,3	47,1	4,4	21,8	9. 52. 47,36						1. 3,89	9. 51. 43,47		B.
	* N.P.D. 74°. 28'.	3,9	21,1	....	55,1	12,6	9. 55. 38,16						1. 3,89	9. 54. 34,27		B.
	Regulus.....	50,9	7,8	24,3	41,8	58,2	10. 1. 24,60	1. 3,93								B.
	34 Leonis.....	2,4	19,4	36,2	53,2	....	10. 4. 36,28						1. 3,89	10. 3. 32,39		B.
	37 Leonis.....	....	22,8	39,7	56,9	....	10. 9. 39,82						1. 3,90	10. 8. 35,92		B.
	H. C. 20024.....	5,8	22,8	39,6	56,8	13,9	10. 12. 39,78						1. 3,90	10. 11. 35,88		B.
	42 Leonis.....	....	30,8	47,8	5,7	....	10. 14. 48,12						1. 3,90	10. 13. 44,22		B.
	* N.P.D. 75°. 39'.	....	30,8	....	4,8	21,7	10. 17. 47,78						1. 3,91	10. 16. 48,87		B.
	Bessel x. 325.....	....	28,9	46,6	3,8	....	10. 19. 46,45						1. 3,91	10. 18. 42,54		B.
	— x. 364.....	10,3	27,1	44,8	1,9	19,0	10. 21. 44,62						1. 3,91	10. 20. 40,71		B.
	* N.P.D. 75°. 36'.	15,9	32,8	49,9	7,1	24,1	10. 25. 49,06						1. 3,91	10. 24. 46,05		B.
	(h) Polaris SP. R....	59,0	30,0	4,0	29,0	3,0	13. 5. 1,00	41,69								B.
	Spica.....	46,9	3,7	20,4	37,1	54,2	13. 18. 20,46	- 1. 3,98								B.
Apr. 11	ρ Leonis.....	28,2	45,2	2,0	19,3	36,0	10. 26. 2,14			1,34	- 0,056	- 0,006	1. 9,40	10. 24. 52,74		T.
	Bessel x. 525.....	52,9	9,8	27,1	43,8	0,6	10. 30. 26,84						1. 9,41	10. 29. 17,43		T.
	(c) * N.P.D. 80°. 21'.	34,3	51,6	....	25,0	....	10. 35. 8,06						1. 9,41	10. 33. 58,65		T.
	* N.P.D. 80°. 15'.	....	58,8	15,9	33,0	....	10. 40. 15,92						1. 9,42	10. 39. 6,50		T.
	Bessel x. 782.....	57,2	14,0	30,5	47,3	4,2	10. 44. 30,64						- 1. 9,42	10. 43. 21,22		T.

INTERVALS for an Equatorial Star of wires I, II, III, IV, V, from the mean of the five wires, - 32^s.824, - 16^s.441, - 0^s.089, + 16^s.468, + 32^s.886.

(a) Mercury tremulous at wire V. (b) Good. (c) Cloudy. (d) Very windy: mercury unsteady. (e) Very faint. (f) Blazing.
 (g) Probably 1^s in defect: not used for reduction to the meridian. (h) Wires I and II good. (i) Corrected by 0^s.33 for difference of personal equation of C and B.
 (k) Not good: the mercury tremulous and a dense fog.

Month and Day.	NAME OF STAR.	Seconds of transit over the five wires.					Concluded transit over the mean of the five wires.	Correction of transit-time for known stars.		Adopted gaining rate of clock.	Correction for 1 ^h of increase of R.A.	Correction for 1 ^h of increase of N.P.D.	Correction of transit-time for unknown stars.		Apparent R.A. from the Observation.	Observer.	
		I	II	III	IV	V											
		s.	s.	s.	s.	s.		h.	m.				s.	m.			s.
Apr. 11	* N.P.D. 80°. 37'.	33,0	50,0	6,2	23,1	40,0	10. 49.	6,46			1,34	- 0,056	- 0,006	- 1. 9,43	10. 47. 57,03	T.	
	* N.P.D. 80°. 39'.	12,0	28,3	....	2,2	18,2	10. 53.	45,16						1. 9,43	10. 52. 35,73	T.
	Bessel x. 1021	2,0	18,8	35,9	52,3	9,1	10. 57.	35,62						1. 9,44	10. 56. 26,18	T.	
	* N.P.D. 80°. 48'.	35,1	52,0	8,8	26,0	42,5	11. 1.	8,88						1. 9,44	10. 59. 59,44	T.	
	δ Leonis	57,2	15,0	32,5	50,3	11. 7.	14,94	- 1. 9,34								
	* N.P.D. 80°. 5'.	50,0	6,6	23,2	40,0	56,7	11. 14.	23,30						1. 9,45	11. 13. 13,85	T.	
	* N.P.D. 79°. 41'.	17,4	34,0	51,2	8,5	25,0	11. 17.	51,22						1. 9,45	11. 16. 41,77	T.	
	(a) Bessel xi. 344	34,7	51,9	....	25,3	42,0	11. 21.	8,46						1. 9,45	11. 19. 59,01	T.
	(b) * N.P.D. 80°. 14'.	5,9	22,9	40,0	56,3	13,2	11. 25.	39,66						1. 9,46	11. 24. 30,20	T.	
	Bessel xi. 501	24,7	41,4	58,4	15,0	31,9	11. 29.	58,28						1. 9,46	11. 28. 48,82	T.	
	(b) — xi. 572	19,6	36,4	53,8	10,5	27,2	11. 33.	53,50						1. 9,47	11. 32. 44,03	T.	
	* N.P.D. 80°. 8'.	44,2	0,9	17,7	34,9	51,9	11. 38.	17,92						1. 9,47	11. 37. 8,45	T.	
	β Leonis	58,0	15,1	32,2	49,1	6,3	11. 42.	32,14	1. 9,46								T.
	γ Virginis	38,6	55,2	11,8	28,2	44,8	12. 35.	11,72						1. 9,58	12. 34. 2,14	B.	
	Bessel xii. 660	23,7	40,2	56,6	13,2	....	12. 39.	56,67						1. 9,61	12. 38. 47,06	B.
	— xii. 729	17,1	34,1	50,2	6,8	23,2	12. 43.	50,28						1. 9,60	12. 42. 40,68	B.	
	* N.P.D. 90°. 39'.	2,2	18,8	35,2	51,5	7,8	12. 47.	35,10						1. 9,60	12. 46. 25,50	B.	
	Bessel xii. 861	47,3	3,9	20,0	36,9	53,1	12. 51.	20,24						1. 9,61	12. 50. 10,63	B.	
	(c) * N.P.D. 90°. 43'.	27,1	....	2,3	18,6	34,7	12. 55.	1,57						1. 9,60	12. 53. 51,97	B.
	Bessel xii. 989	4,8	21,2	37,4	53,7	10,3	12. 58.	37,48						1. 9,61	12. 57. 27,87	B.	
	Spica	52,8	9,6	26,0	43,0	59,6	13. 18.	26,20	1. 9,69								B.
Apr. 14	* N.P.D. 81°. 14'.	48,8	5,3	22,1	39,5	51,3	10. 39.	21,40			1,28	- 0,053	- 0,006	1. 13,30	10. 38. 8,10	B.	
	Bessel x. 730	29,9	46,2	2,9	20,1	36,8	10. 42.	3,18						1. 13,31	10. 40. 49,87	B.	
	— x. 783	1,1	17,0	34,1	50,8	7,9	10. 44.	34,18						1. 13,31	10. 43. 20,87	B.	
	— x. 854	8,6	25,6	41,8	58,1	14,9	10. 47.	41,80						1. 13,31	10. 46. 28,49	B.	
	(d) — x. 888	32,9	49,2	6,0	23,0	39,1	10. 50.	6,04						1. 13,31	10. 48. 52,73	B.	
	— x. 935	23,1	39,8	56,1	13,1	29,7	10. 52.	56,36						1. 13,32	10. 51. 43,04	B.	
	B.A.C. 3780	31,8	48,1	4,7	21,7	38,0	10. 57.	4,86						1. 13,32	10. 55. 51,54	B.	
	Bessel x. 1053. ...	0,9	17,3	33,9	50,9	7,3	10. 59.	34,06						1. 13,32	10. 58. 20,74	B.	
	— x. 1100.	18,1	34,7	51,5	8,3	25,0	11. 1.	51,52						1. 13,32	11. 0. 38,20	B.	
	δ Leonis	43,4	1,1	18,6	36,4	54,0	11. 7.	18,70	1. 13,13							B.	
	(e) * N.P.D. 81°. 26'.	1,1	16,8	33,3	51,0	7,8	11. 10.	34,00						1. 13,33	11. 9. 20,67	B.	
	Bessel xi. 197	31,2	47,9	4,4	21,1	36,2	11. 13.	4,16						1. 13,33	11. 11. 50,83	B.	
	B.A.C. 3871	8,7	24,8	41,7	58,4	14,9	11. 16.	41,70						1. 13,35	11. 15. 28,35	B.	
	Bessel xi. 307	36,3	52,9	9,1	26,1	42,8	11. 19.	9,44						1. 13,35	11. 17. 56,09	B.	
	— xi. 361	14,3	30,9	48,0	5,0	21,8	11. 21.	48,00						1. 13,34	11. 20. 34,66	B.	
	* N.P.D. 80°. 25'.	20,8	37,3	54,0	10,7	27,6	11. 24.	54,08						1. 13,33	11. 23. 40,75	B.	
	Bessel xi. 449	39,1	55,7	12,2	29,1	46,0	11. 27.	12,42						1. 13,34	11. 25. 59,08	B.	
	— xi. 566	2,1	18,7	35,1	52,1	8,8	11. 33.	35,36						1. 13,36	11. 32. 22,00	B.	
	* N.P.D. 80°. 51'.	37,8	54,1	10,8	27,9	....	11. 36.	10,98						1. 13,35	11. 34. 57,63	B.
	(f) ξ Virginis	11,8	28,4	45,1	1,4	18,3	11. 38.	45,00						1. 13,36	11. 37. 31,64	B.	
	β Leonis	2,1	19,1	35,9	53,1	10,1	11. 42.	36,06	1. 13,40								B.
Apr. 20	* N.P.D. 74°. 8'.	....	56,2	13,3	30,7	....	9. 58.	13,42			1,16	- 0,048	- 0,007	1. 20,92	9. 56. 52,50	B.
	Regulus	7,9	24,8	41,4	58,3	15,2	10. 1.	41,52	- 1. 21,02								
	* N.P.D. 74°. 23'.	39,0	59,0	15,9	33,1	50,1	10. 6.	15,42						1. 20,93	10. 4. 54,49	B.	
	Bessel x. 128	31,9	48,9	6,2	22,9	40,0	10. 9.	5,98						1. 20,95	10. 7. 45,03	B.	
	(g) — x. 170 ....	....	24,1	41,2	59,1	....	10. 12.	41,49						1. 20,94	10. 11. 20,55	B.
	42 Leonis	30,4	47,8	5,3	22,4	39,6	10. 15.	5,10						1. 20,93	10. 13. 44,17	B.	
	(h) * N.P.D. 75°. 39'.	....	47,0	....	21,0	....	10. 18.	3,97						1. 20,94	10. 16. 43,03	B.
	* N.P.D. 73°. 29'.	8,8	25,9	42,8	0,2	17,2	10. 21.	42,98						1. 20,94	10. 20. 22,04	B.	
	ι Leonis	56,9	13,8	30,8	47,8	4,9	10. 25.	30,84						1. 20,95	10. 24. 9,89	B.	
	Bessel x. 499	56,0	13,2	29,7	46,6	3,8	10. 29.	29,86						1. 20,97	10. 28. 8,89	B.	
	H. C. 20571	35,3	53,0	10,1	27,2	44,1	10. 32.	9,94						1. 20,96	10. 30. 48,98	B.	
	Bessel x. 603	29,4	46,3	4,3	21,0	37,9	10. 35.	3,78						1. 20,96	10. 33. 42,82	B.	
	(h) H. C. 20748	9,1	25,8	42,6	59,7	16,4	10. 39.	42,72						1. 20,97	10. 38. 21,75	B.	
	Bessel x. 803	51,9	8,7	25,4	42,2	59,1	10. 45.	25,46						1. 20,99	10. 44. 4,47	B.	
	— x. 875 ....	....	1,2	19,0	35,4	....	10. 49.	18,55						1. 21,00	10. 47. 57,55	B.

INTERVALS for an Equatorial Star of wires I, II, III, IV, V, from the mean of the five wires, - 32', 824, - 16', 441, - 0', 089, + 16', 468, + 32', 886.

(a) Cloudy. (b) The southern of two of equal magnitude. (c) Very faint. (d) The noted times are probably 10^s too great. (e) Too faint for a good observation. (f) Blazing. (g) The observed R.A. is 1^m greater than Bessel's. (h) Cloud.

Month and Day.	NAME OF STAR.	Seconds of transit over the five wires.					Concluded transit over the mean of the five wires.	Correction of transit-time for known star.	Adopted gaining rate of clock.	Correction for 1 ^h of increase of R.A.	Correction for 1 ^o of increase of N.P.D.	Correction of transit-time for unknown stars.	Apparent R.A. from the Observation.	Observer.	
		I	II	III	IV	V									
		s.	s.	s.	s.	s.									h. m. s.
Apr. 20	Bessel x. 931.....	19,3	36,1	52,9	9,9	26,9	10. 52. 53,02		1,16	-0,048	-0,007	-1. 20,99	10. 51. 32,03	B.	
	(a) — x. 987.....	....	45,9	3,2	20,2	....	10. 56. 3,12					1. 21,02	10. 54. 42,10	B.
	— x. 1041.....	34,1	51,9	8,8	25,6	42,7	10. 59. 8,62					1. 21,00	10. 57. 47,62	B.	
	* N.P.D. 80°. 23'.	....	0,9	18,7	36,5	....	11. 2. 18,72					1. 21,02	11. 0. 57,70	B.
	δ Leonis.....	51,2	8,8	26,1	43,9	1,9	11. 7. 26,38	-1. 20,86							B.
	B.A.C. 3871.....	16,0	33,0	49,3	5,9	22,8	11. 16. 49,40					1. 21,04	11. 15. 28,36	B.	
	B.A.C. 3892.....	17,9	34,7	50,9	8,0	24,8	11. 19. 51,26					1. 21,02	11. 18. 30,24	B.	
	B.A.C. 3911.....	71,1	57,9	14,2	31,1	47,9	11. 23. 14,40					1. 21,03	11. 21. 53,37	B.	
	Bessel xi. 439.....	9,5	26,1	42,8	59,4	15,8	11. 26. 42,72					1. 21,04	11. 25. 21,68	B.	
	— xi. 495.....	6,9	23,1	40,1	56,7	13,6	11. 29. 40,08					1. 21,04	11. 28. 19,04	B.	
	— xi. 543.....	49,0	5,8	22,1	38,9	55,6	11. 32. 22,28					1. 21,04	11. 31. 1,24	B.	
	— xi. 617.....	56,4	12,9	29,7	46,2	2,8	11. 36. 29,60					1. 21,06	11. 35. 8,54	B.	
	ν Virginis.....	....	11,7	27,9	45,0	....	11. 39. 28,22					1. 21,06	11. 38. 7,16	B.
	B.A.C. 3996.....	12,1	28,8	44,9	1,9	18,1	11. 42. 45,16					1. 21,07	11. 41. 24,09	B.	
	* N.P.D. 85°. 30'.	29,8	45,6	2,7	19,6	35,9	11. 47. 2,72					1. 21,08	11. 45. 41,64	B.	
	* N.P.D. 83°. 49'.	53,3	9,9	26,3	43,2	59,4	11. 51. 26,42					1. 21,07	11. 50. 5,35	B.	
	ι Virginis.....	2,8	19,1	35,8	52,3	8,9	11. 53. 35,78					1. 21,09	11. 52. 14,69	B.	
	Bessel xi. 975.....	42,1	58,8	15,1	31,8	47,9	11. 58. 15,14					1. 21,09	11. 56. 54,05	B.	
	* N.P.D. 86°. 39'.	47,7	3,9	20,1	36,8	53,8	12. 1. 20,46					1. 21,11	11. 59. 59,35	B.	
	Bessel xii. 68.....	37,1	53,7	9,9	26,6	42,9	12. 6. 10,04					1. 21,10	12. 4. 48,94	B.	
	— xii. 138....	4,8	21,4	37,7	53,9	10,7	12. 10. 37,70					1. 21,12	12. 9. 16,58	B.	
	ζ Virginis.....	30,8	46,9	3,7	20,2	36,8	12. 14. 3,68					1. 21,11	12. 12. 42,57	B.	
	Bessel xii. 260....	44,7	1,5	17,9	34,6	50,9	12. 17. 17,92					1. 21,12	12. 15. 56,80	B.	
	— xii. 312....	3,9	23,8	40,1	56,7	13,1	12. 20. 39,52					1. 21,13	12. 19. 18,39	B.	
	— xii. 392....	21,9	38,1	54,8	11,1	27,8	12. 24. 54,74					1. 21,12	12. 23. 33,62	B.	
	β Corvi.....	33,1	51,1	8,8	26,9	12. 27. 51,09	1. 17,00							B.
	(b) Spica.....	4,6	21,1	37,9	54,7	11,3	13. 18. 37,92	1. 17,84							B.
Apr. 21	* N.P.D. 80°. 10'.	45,7	2,1	18,8	35,0	52,2	10. 51. 18,76		1,16	-0,048	-0,009	1. 22,14	10. 49. 56,62	B.	
	H. C. 21170.....	13,1	30,2	46,3	3,2	19,9	10. 55. 46,54					1. 22,15	10. 54. 24,39	B.	
	χ Leonis.....	....	20,2	37,1	53,7	....	10. 58. 37,02					1. 22,17	10. 57. 14,85	B.
	Bessel x. 1096.....	14,2	31,0	47,3	4,0	20,6	11. 1. 47,42					1. 22,17	11. 0. 25,25	B.	
	δ Leonis.....	52,0	10,0	27,3	45,2	2,9	11. 7. 27,48	1. 19,98							B.
	Bessel xii. 269....	48,8	5,0	21,2	38,1	54,3	12. 18. 21,48					1. 22,28	12. 16. 59,20	B.	
	— xii. 376....	25,9	42,2	58,8	15,1	32,8	12. 23. 58,96					1. 22,29	12. 22. 36,67	B.	
	(c) β Corvi.....	16,9	34,7	52,2	10,2	27,9	12. 27. 52,38	1. 18,29							B.
	Bessel xii. 490....	11,6	28,0	44,3	1,0	17,4	12. 30. 44,46					1. 22,30	12. 29. 22,16	B.	
	γ Virginis.....	52,2	8,3	24,4	41,2	57,9	12. 35. 24,80					1. 22,31	12. 34. 2,49	B.	
	Bessel xii. 638....	27,3	43,9	0,3	16,8	33,2	12. 39. 0,30					1. 22,29	12. 37. 38,01	B.	
	— xii. 688....	....	30,8	47,1	3,2	....	12. 41. 47,05					1. 22,30	12. 40. 24,75	B.
	— xii. 736....	....	6,9	23,5	38,8	....	12. 44. 23,09					1. 22,30	12. 43. 0,79	B.
	— xii. 781....	....	50,9	7,7	....	41,1	12. 47. 7,78					1. 22,30	12. 45. 45,48	B.
	* N.P.D. 93°. 4'.	18,3	35,6	52,1	10,1	25,0	13. 9. 52,22					1. 22,35	13. 8. 29,87	B.	
	Bessel xiii. 197..	45,9	2,1	18,6	35,0	51,8	13. 13. 18,68					1. 22,38	13. 11. 56,30	B.	
	Spica.....	5,5	22,2	38,9	55,7	12,8	13. 18. 39,02	1. 22,47							B.
	Arcturus.....	53,6	10,2	27,8	45,2	14. 10. 10,47	1. 22,48							B.
Apr. 23	Bessel x. 368.....	49,8	6,2	23,0	40,5	57,2	10. 22. 23,34		1,14	-0,048	-0,017	1. 24,46	10. 20. 58,88	T.	
	49 Leonis.....	59,6	16,4	32,9	49,7	6,2	10. 28. 32,96					1. 24,48	10. 27. 8,48	T.	
	* N.P.D. 81°. 52'.	....	10,3	27,0	43,9	....	10. 32. 27,09					1. 24,50	10. 31. 2,59	T.
	Bessel x. 661.....	49,0	5,8	22,1	38,9	55,4	10. 38. 22,24					1. 24,53	10. 36. 57,71	T.	
	— x. 730.....	41,0	57,9	14,2	30,9	47,8	10. 42. 14,36					1. 24,52	10. 40. 49,84	T.	
	— x. 810.....	....	19,3	36,2	52,8	....	10. 45. 36,12					1. 24,53	10. 44. 11,59	T.
	— x. 873.....	40,0	56,4	12,9	29,9	46,0	10. 49. 13,04					1. 24,53	10. 47. 48,51	T.	
	— x. 928.....	11,7	28,3	44,8	1,3	17,9	10. 52. 44,80					1. 24,53	10. 51. 20,27	T.	
	(d) * N.P.D. 82°. 10'.	42,0	58,6	15,0	....	....	10. 57. 15,13					-1. 24,53	10. 55. 50,60	T.
	(d) δ Leonis.....	54,6	12,1	29,8	47,6	4,9	11. 7. 29,80	1. 24,31						T.	
Apr. 24	(e) α Hydra.....	3,7	20,0	36,7	53,3	10,1	9. 21. 36,76	-1. 25,87						B.	

INTERVALS for an Equatorial Star of wires I, II, III, IV, V, from the mean of the five wires, - 32', 824, - 16', 441, - 0', 089, + 16', 468, + 32', 886.

(a) Unsteady.

(b) Satisfactory observation.

(c) Faint and unsteady.

(d) Cloudy.

(e) Very faint from mist.

Month and Day.	NAME OF STAR.	Seconds of transit over the five wires.					Concluded transit over the mean of the five wires.	Correction of transit-time for known star.	Adopted gaining rate of clock.	Correction for 1 ^h of increase of R.A.	Correction for 1 ^o of increase of N.P.D.	Correction of transit-time for unknown stars.	Apparent R.A. from the Observation.	Observer.			
		I	II	III	IV	V											
		s.	s.	s.	s.	s.									h.	m.	s.
Apr. 26	(a) α Hydræ.....	5,8	22,3	38,9	55,7	12,1	9. 21. 38,96	- 1. 28,10	1,02	- 0,042	- 0,018					B.	
	Regulus.....	14,4	31,1	47,9	5,0	22,0	10. 1. 48,08	1. 27,66								B.	
	ρ Leonis.....		3,6	20,1	37,0		10. 26. 20,25						- 1. 27,75	10. 24. 52,50		B.	
	49 Leonis.....	2,2	19,0	35,7	52,3	9,0	10. 28. 35,64						1. 27,76	10. 27. 7,88		B.	
	(b) Bessel x. 525.....	11,1	28,1	44,7	1,7	18,2	10. 30. 44,76						1. 27,75	10. 29. 17,01		B.	
	— x. 570.....	43,0	59,9	16,4	33,1	50,0	10. 33. 16,48						1. 27,76	10. 31. 48,72		B.	
	* N.P.D. 80°. 21'.	52,7		25,9	42,9	59,1	10. 35. 25,98						1. 27,76	10. 33. 58,22		B.	
	Bessel x. 657.....	25,2	41,7	58,3	15,2	31,8	10. 37. 58,44						1. 27,77	10. 36. 30,67		B.	
	(c) — x. 703.....	23,9		56,7	13,6	30,2	10. 40. 56,96						1. 27,81	10. 39. 29,15		B.	
	— x. 782.....	15,4	32,0	48,7	5,2	22,0	10. 44. 48,66						1. 27,76	10. 43. 20,90		B.	
	(d) — x. 860.....	51,4	7,9	24,6		57,6	10. 48. 24,53						1. 27,82	10. 46. 56,71		B.	
	— x. 907.....	40,9	57,7	14,2	30,8	47,4	10. 51. 14,20						1. 27,80	10. 49. 46,40		B.	
	H. C. 21127.....	46,1	2,9	19,4	35,9	52,3	10. 54. 19,32						1. 27,83	10. 52. 51,49		B.	
	Bessel x. 1001 ...	18,8	35,6	52,3	9,0	25,8	10. 56. 52,30						1. 27,79	10. 55. 24,51		B.	
	* N.P.D. 79°. 50'.	22,8	39,1	56,1	12,6	29,8	10. 59. 56,08						1. 27,77	10. 58. 28,31		B.	
	Bessel x. 1110....	10,3	26,8	43,6	0,0	17,1	11. 2. 43,56						1. 27,79	11. 1. 15,77		B.	
	δ Leonis.....	57,8	15,2	32,9	50,9	8,4	11. 7. 33,04	1. 27,59									B.
	Bessel xi. 923		39,5	55,8	12,2		11. 54. 55,85						1. 27,91	11. 53. 27,94		B.	
	H. C. 22686.....	55,9	12,3	28,7	45,2	1,9	11. 58. 28,80						1. 27,91	11. 57. 0,89		B.	
	(e) — 22771.....	31,2	47,8	4,1	20,9	37,3	12. 2. 4,26						1. 27,91	12. 0. 36,35		B.	
	* N.P.D. 86°. 2'.	0,2	16,6	33,0	48,7	5,8	12. 5. 32,86						1. 27,93	12. 4. 4,93		B.	
	(e) * N.P.D. 87°. 40'.	36,7	53,1	9,7		42,7	12. 9. 9,67						1. 27,95	12. 7. 41,72		B.	
	* N.P.D. 88°. 0'.	14,4	30,9	46,9	3,7	20,1	12. 12. 47,20						1. 27,96	12. 11. 19,24		B.	
	* N.P.D. 88°. 7'.		32,1	48,3	4,9		12. 15. 48,45						1. 27,97	12. 14. 20,48		B.	
	Bessel xii. 463 ...	31,0	47,8	4,2	20,9	37,3	12. 29. 4,24						1. 27,95	12. 27. 36,29		B.	
	* N.P.D. 87°. 26'.	24,2	40,9	56,8	13,7	30,0	12. 33. 57,12						1. 27,97	12. 32. 29,15		B.	
	* N.P.D. 88°. 1'.	38,8	54,9	11,6	27,8	44,5	12. 38. 11,52						1. 27,98	12. 36. 43,54		B.	
	(f) Bessel xii. 664 ...		9,2	25,8	42,4		12. 40. 25,82						1. 28,01	12. 38. 57,81		B.	
	(g) * N.P.D. 90°. 42'.		25,1	41,7	58,3		12. 44. 41,72						1. 28,04	12. 43. 13,68		B.	
	(h) Polaris SP.....		16,8	49,0	15,6		13. 6. 46,34	2. 22,80									B.
	Spica.....	11,1	28,1	44,7	1,6	18,1	13. 18. 44,72	1. 28,16									B.
	Polaris.....	3,0	35,0		32,5		1. 5. 2,42	0. 38,70									B.
Apr. 28	(h) Regulus.....	16,3	33,1	49,8	6,9	23,8	10. 1. 49,98	1. 29,59	0,84	- 0,035	- 0,018					B.	
	Bessel x. 928.....	17,0	33,7	50,2	6,9	23,6	10. 52. 50,28						1. 29,75	10. 51. 20,53		B.	
	— x. 1001	20,7	37,6	53,7	11,1	27,3	10. 56. 54,08						1. 29,73	10. 55. 24,35		B.	
	— x. 1100.....	34,9	51,3	7,8	24,4	40,9	11. 2. 7,86						1. 29,75	11. 0. 38,11		B.	
	(e) — xi. 23.....		54,7	11,3	27,8	44,4	11. 4. 11,25						1. 29,74	11. 2. 41,51		B.	
	δ Leonis.....	59,7	17,3	35,0	52,7	10,2	11. 7. 34,98	1. 29,55								B.	
	(i) Bessel xi. 168		31,2	47,9	4,3		11. 11. 47,82						1. 29,77	11. 10. 18,05		B.	
	(e) * N.P.D. 84°. 34'.	32,4	48,8	5,5	22,1	38,7	11. 14. 5,50						1. 29,80	11. 12. 35,70		B.	
	B.A.C. 3871.....	25,0	41,6	57,8	14,7	31,2	11. 16. 58,06						1. 29,76	11. 15. 28,30		B.	
	(k) * N.P.D. 82°. 23'.	23,1	39,9	56,1	13,2	29,6	11. 19. 56,38						1. 29,77	11. 18. 26,61		B.	
(l) Bessel xi. 374	23,7			13,6	30,2	11. 22. 56,94						1. 29,77	11. 21. 27,17		B.		
Apr. 29	(m) Polaris R.....	18,0		12,0		25,0	1. 6. 18,68	1. 54,08	0,67	- 0,028	- 0,021					B.	
Apr. 30	H. C. 20879.....		27,6	44,3	1,3		10. 44. 44,42						1. 30,50	10. 43. 13,92		B.	
	Bessel x. 914.....	16,2	33,2	50,0	6,8	23,7	10. 51. 49,98						1. 30,44	10. 50. 19,54		B.	
	H. C. 21170.....	21,9	38,6	54,3	12,1	28,7	10. 55. 55,12						1. 30,53	10. 54. 24,59		B.	
	Bessel x. 1068	51,3	7,8	24,3	40,9	57,4	11. 0. 24,34						1. 30,56	10. 58. 53,78		B.	
	* N.P.D. 85°. 28'.	6,3	22,9	39,3	56,0	12,3	11. 3. 39,36						1. 30,59	11. 2. 8,77		B.	
	δ Leonis.....	0,2	18,1	35,7	53,3	11,0	11. 7. 35,66	- 1. 50,25								B.	
	Bessel xi. 160	47,1	3,9	20,1	36,7	53,3	11. 11. 20,22						1. 30,59	11. 9. 49,63		B.	
	— xi. 233.....	46,6		3,2	19,7	36,2	11. 15. 19,76						1. 30,59	11. 13. 49,17		B.	
	H. C. 21696.....		21,8	38,7	55,1		11. 17. 38,55						1. 30,61	11. 16. 7,94		B.	
	80 Leonis.....	3,3	20,3	36,8	53,4	9,9	11. 19. 36,74						1. 30,60	11. 18. 6,14		B.	
* N.P.D. 85°. 42'.	40,8	56,9				11. 22. 13,56						- 1. 30,61	11. 20. 42,95		B.		

INTERVALS for an Equatorial Star of wires I, II, III, IV, V, from the mean of the five wires, - 32°, 824, - 16°, 441, - 0°, 089, + 16°, 468, + 32°, 886.

(a) Well defined. (b) One of equal magnitude precedes. (c) Thick cloud passing. (d) The observer was disturbed. (e) Cloudy.
 (f) The observed time has been diminished 1^m. The star is H. C. 23815, the minutes of the R.A. of which are the same as Bessel's. (g) Very faint.
 (h) Good. (i) Clouds passing. (k) Faint at times from cloud. (l) Sometimes quite obscured. (m) Clouds passing; the last wire good.

Month and Day.	NAME OF STAR.	Seconds of transit over the five wires.					Concluded transit over the mean of the five wires.	Correction of transit-time for known star.		Adopted gaining rate of clock.	Correction for 1 ^h of increase of R.A.	Correction for 1 ^o of increase of N.P.D.	Correction of transit-time for unknown stars.		Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V												
		s.	s.	s.	s.	s.		m.	s.	s.	s.	s.	m.	s.	h.	m.	s.	
May 2	Bessel x. 1051....	....	33,2	50,1	7,0	....	10. 59. 50,12			0,66	- 0,027	- 0,021	- 1. 32,02		10. 58. 18,10			B.
	(a) H. C. 21330.....	40,9	57,4	13,8	30,2	46,7	11. 2. 13,80						1. 31,97		11. 0. 41,83			B.
	δ Leonis	1,7	19,4	36,9	54,7	12,3	11. 7. 37,00	- 1. 31,61										B.
	Bessel xi. 188....	32,0	48,7	4,8	21,4	37,9	11. 13. 4,96						1. 32,04		11. 11. 32,92			B.
	* N.P.D. 89°. 36'.	....	29,9	46,2	3,1	....	11. 15. 46,42						1. 32,06		11. 14. 14,36			B.
	79 Leonis.....	....	34,0	50,3	7,1	....	11. 17. 50,49						1. 32,02		11. 16. 18,47			B.
	(b) 83 Leonis.....	7,2	23,9	40,0	56,7	13,1	11. 20. 40,18						1. 31,99		11. 19. 8,19			B.
May 3	Regulus.....	....	....	52,8	9,8	26,7	10. 1. 52,94	1. 32,62		0,65	- 0,027	- 0,024						B.
	δ Leonis	2,4	20,1	37,7	55,1	12,9	11. 7. 37,64	1. 32,26										B.
	B.A.C. 3873.....	35,9	52,1	8,1	25,0	41,5	11. 17. 8,52						1. 32,82		11. 15. 35,70			B.
	* N.P.D. 89°. 3'.	20,3	36,7	52,7	9,3	25,6	11. 18. 52,92						1. 32,82		11. 17. 20,10			B.
	Bessel xi. 342....	50,3	7,1	23,8	40,2	56,7	11. 21. 23,62						1. 32,80		11. 19. 50,82			B.
	— xi. 429....	53,8	10,5	26,8	43,9	59,9	11. 26. 26,98						1. 32,79		11. 24. 54,19			B.
	* N.P.D. 86°. 19'.	24,5	41,4	57,8	14,9	31,1	11. 28. 57,94						1. 32,75		11. 27. 25,19			B.
	(c) H. C. 22038.....	....	3,8	20,7	37,3	....	11. 31. 20,62						1. 32,83		11. 29. 47,79			B.
	Bessel xi. 562....	3,1	19,7	35,9	52,3	8,9	11. 33. 35,98						1. 32,87		11. 32. 3,11			B.
	— xi. 605....	25,2	41,9	58,1	14,8	31,2	11. 35. 58,24						1. 32,81		11. 34. 25,43			B.
	— xi. 656....	22,7	38,9	55,1	11,8	28,3	11. 38. 55,36						1. 32,79		11. 37. 22,57			B.
	(d) * N.P.D. 87°. 39'.	26,1	41,8	58,1	15,8	32,1	11. 40. 58,78						1. 32,79		11. 39. 25,99			B.
	H. C. 22330.....	3,5	20,1	36,2	52,8	9,2	11. 43. 36,36						1. 32,78		11. 42. 3,58			B.
	* N.P.D. 85°. 51'.	44,9	1,7	17,7	....	50,8	11. 46. 17,91						1. 32,75		11. 44. 45,16			B.
	Bessel xi. 816....	24,2	41,2	57,3	14,1	30,9	11. 48. 57,54						1. 32,75		11. 47. 24,79			B.
	— xi. 891....	....	1,0	17,8	34,8	....	11. 53. 17,89						1. 32,66		11. 51. 45,23			B.
	— xi. 930....	....	1,1	18,3	35,0	....	11. 55. 18,15						1. 32,67		11. 53. 45,48			B.
	— xii. 47....	43,0	59,9	16,2	32,8	49,3	12. 6. 16,24						1. 32,83		12. 4. 43,41			B.
	— xii. 123....	26,3	42,8	59,2	15,9	32,2	12. 9. 59,28						1. 32,75		12. 8. 26,53			B.
	c Virginis	42,8	59,1	15,4	32,1	48,6	12. 14. 15,60						1. 32,76		12. 12. 42,84			B.
	Bessel xii. 237....	37,3	53,8	9,9	26,8	43,2	12. 16. 10,20						1. 32,76		12. 14. 37,44			B.
	(e) — xii. 269....	59,1	15,3	32,1	48,7	5,1	12. 18. 32,06						1. 32,81		12. 16. 59,25			B.
	β Corvi.....	27,2	45,1	2,8	20,7	38,4	12. 28. 2,84	1. 32,99										B.
	Bessel xii. 515....	....	7,0	23,9	40,7	....	12. 32. 23,89						1. 32,88		12. 30. 51,01			B.
	* N.P.D. 88°. 54'.	....	14,7	31,3	47,8	....	12. 34. 31,29						1. 32,87		12. 32. 58,42			B.
	(f) Bessel xii. 585....	....	7,0	24,4	41,0	....	12. 36. 24,15						1. 33,02		12. 34. 51,13			B.
	(g) — xii. 636....	33,8	50,0	6,6	23,1	39,4	12. 39. 6,58						1. 32,98		12. 37. 33,60			B.
	— xii. 736....	1,7	18,1	34,7	51,0	7,7	12. 44. 34,64						1. 32,90		12. 43. 1,74			B.
	38 Virginis	29,1	46,1	2,3	19,1	35,1	12. 47. 2,34						1. 32,98		12. 45. 29,36			B.
	Bessel xii. 820....	57,4	14,1	30,3	46,9	3,7	12. 49. 30,48						1. 32,98		12. 47. 57,50			B.
	(h) — xii. 870....	55,9	12,1	28,5	45,0	1,7	12. 52. 28,64						1. 32,96		12. 50. 55,68			B.
	H. C. 24264.....	15,2	31,8	48,2	4,9	21,2	12. 56. 48,26						1. 32,97		12. 55. 15,29			B.
	* N.P.D. 92°. 19'.	18,1	34,3	51,0	7,7	24,2	12. 59. 51,06						1. 32,98		12. 58. 18,08			B.
	Bessel xii. 1053..	....	2,8	18,9	35,7	....	13. 2. 19,15						1. 32,96		13. 0. 46,19			B.
	(i) — xiii. 31....	12,8	30,2	47,1	2,9	19,3	13. 4. 46,46						1. 32,97		13. 3. 13,49			B.
	— xiii. 529....	47,6	3,9	20,3	37,1	53,9	13. 32. 20,56						1. 33,11		13. 30. 47,45			B.
	— xiii. 610....	16,8	33,3	49,8	6,3	22,9	13. 36. 49,82						1. 33,13		13. 35. 16,69			B.
	— xiii. 667....	....	43,1	0,6	17,7	....	13. 40. 0,49						1. 33,12		13. 38. 27,37			B.
	* N.P.D. 101°. 48'.	43,9	0,3	17,3	34,0	50,9	13. 43. 17,28						1. 33,21		13. 41. 44,07			B.
	* N.P.D. 103°. 55'.	45,2	2,2	19,1	35,9	53,2	13. 47. 19,12						1. 33,26		13. 45. 45,86			B.
	(k) α ³ Libræ.....	34,0	50,9	7,9	24,9	41,9	14. 44. 7,92	1. 33,79										
	(l) Polaris R.....	....	51,0	24,0	52,5	22,0	1. 6. 23,04	1. 57,05		0,62	- 0,026	- 0,021						B.
May 4	δ Leonis	2,9	20,8	38,1	55,9	13,6	11. 7. 38,26	- 1. 32,90										B.
	(m) Bessel xi. 171....	....	51,9	9,8	26,6	43,5	11. 12. 9,59						1. 33,16		11. 10. 36,43			B.
	— xi. 235....	2,7	19,4	35,9	52,8	9,7	11. 15. 36,10						1. 33,19		11. 14. 2,91			B.
	— xi. 295....	37,0	53,2	9,8	26,7	43,8	11. 19. 10,00						1. 33,21		11. 17. 36,79			B.
	— xi. 345....	....	16,8	33,9	50,7	....	11. 21. 33,82						1. 33,22		11. 20. 0,60			B.
	B.A.C. 3911.....	53,6	10,2	26,8	43,6	0,1	11. 23. 26,86						1. 33,22		11. 21. 53,64			B.
	(n) Bessel xi. 412....	53,6	11,1	27,4	44,2	1,0	11. 25. 27,46						1. 33,22		11. 23. 54,24			B.
	— xi. 446....	....	2,1	18,8	35,9	....	11. 27. 18,95						- 1. 33,21		11. 25. 45,74			B.

INTERVALS for an Equatorial Star of wires I, II, III, IV, V, from the mean of the five wires, - 32°, 824, - 16°, 441, - 0°, 089, + 16°, 468, + 32°, 886.

(a) Misty. (b) Near the Moon. (c) A brighter of greater N.P.D. preceded. (d) Not good: observed hurriedly. (e) The Moon near. (f) Wire II is perhaps 1^o too little. (g) The south-following and brighter of two. (h) Wire V was set down 11,7. (i) Very irregular intervals: the observer was much disturbed. (k) No definition. (l) Much tremor: wire III not good. (m) Faint. (n) The counting was 11^o in advance: correction applied accordingly.

Month and Day.	NAME OF STAR.	Seconds of transit over the five wires.					Concluded transit over the mean of the five wires.	Correction of transit-time for known star.		Adopted gaining rate of clock.	Correction for 1 ^h of increase of R.A.	Correction for 1 ^o of increase of N.P.D.	Correction of transit-time for unknown stars.		Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V										
		s.	s.	s.	s.	s.		h. m. s.	m. s.	s.	s.	s.	m. s.	s.	h. m. s.	
May 4	Bessel xi. 479. ...	35,3	51,0	8,2	25,1	41,9	11.29.8,30			0,62	-0,026	-0,021	-1.33,22		11.27.35,08	B.
	H. C. 22044.	59,4	15,9	32,4	49,1	5,8	11.31.32,52						1.33,24		11.29.59,28	B.
	Bessel xi. 566. ...	22,0	39,0	55,2	11,9	28,7	11.33.55,36						1.33,26		11.32.22,10	B.
	* N.P.D. 33°. 39'. ...	43,1	0,3	16,9	33,3	49,9	11.36.16,70						1.33,28		11.34.43,42	B.
	Bessel xi. 665. ...	0,9	17,3	34,1	50,9	7,0	11.39.34,04						1.33,33		11.38.0,71	B.
	β Leonis.	21,6	38,7	55,3	12,8	29,9	11.42.55,66	-1.33,15								B.
	H. C. 22440.	6,2	22,7	39,8	56,8	13,1	11.48.39,72						1.33,27		11.47.6,45	B.
	Bessel xi. 861.	19,6	36,1	52,8	...	...	11.51.36,19						1.33,26		11.50.2,93	B.
	— xi. 903. ...	33,7	50,1	6,8	23,3	39,8	11.54.6,74						1.33,30		11.52.33,44	B.
	— xi. 951. ...	11,8	28,3	44,7	1,4	17,8	11.56.44,80						1.33,31		11.55.11,49	B.
	— xii. 68. ....	...	5,4	22,1	38,9	...	12.6.22,15						1.33,33		12.4.48,82	B.
	— xii. 123.	26,9	43,2	59,8	16,2	32,8	12.9.59,78						1.33,33		12.8.26,45	B.
	— xii. 163.	37,8	54,9	11,2	27,8	44,2	12.12.11,18						1.33,34		12.10.37,84	B.
	— xii. 220.	45,7	2,2	18,8	35,2	51,7	12.15.18,72						1.33,34		12.13.45,38	B.
	* N.P.D. 86°. 19'. ...	...	5,8	22,7	...	...	12.17.22,53						1.33,34		12.15.49,19	B.
	(a) Bessel xii. 295. ...	20,6	37,0	53,1	9,9	26,2	12.19.53,36						1.33,37		12.18.19,99	B.
	— xii. 342. ...	36,2	52,7	9,7	25,9	42,5	12.22.9,40						1.33,34		12.20.36,06	B.
	* N.P.D. 86°. 51'. ...	36,7	53,6	9,8	26,2	42,9	12.25.9,84						1.33,38		12.23.36,46	B.
	β Corvi.	27,8	46,1	3,7	21,7	39,4	12.28.3,74	1.33,90								B.
	Bessel xii. 493. ...	34,8	50,9	7,7	23,9	40,5	12.31.7,56						1.33,42		12.29.34,14	B.
	— xii. 530. ...	42,9	59,5	16,2	32,8	49,1	12.33.16,10						1.33,42		12.31.42,68	B.
	* N.P.D. 89°. 29'. ...	36,3	52,7	8,9	25,5	41,9	12.36.9,06						1.33,42		12.34.35,64	B.
	(b) Polaris SP. R.	35,0	5,0	40,0	8,5	27,0	13.5.35,10	1.8,88								B.
	Spica.	16,8	33,2	49,9	6,8	23,2	13.18.49,98	1.33,42								B.
	α ² Libræ.	34,1	51,1	8,2	25,2	42,3	14.44.8,18	1.34,04								B.
	(c) Polaris R. ....	...	...	17,0	48,0	...	1.6.19,29	1.52,83								B.
May 7	B.A.C. 4104. ....	...	17,1	33,8	50,3	...	12.5.33,75			0,79	-0,033	-0,021	1.35,28		12.3.58,47	B.
	(d) Bessel xii. 123. ...	29,0	45,4	1,8	18,6	34,9	12.10.1,94						1.35,30		12.8.26,64	B.
	(e) — xii. 163. ...	39,8	56,2	12,8	29,8	...	12.12.12,89						1.35,31		12.10.37,58	B.
	(e)(f) * N.P.D. 86°. 45'. ...	3,4	20,4	35,8	52,3	...	12.19.36,21						1.35,32		12.18.0,89	B.
	(e) Bessel xii. 326. ...	...	20,3	36,3	53,2	...	12.21.36,62						1.35,33		12.20.1,29	B.
	(e) * N.P.D. 86°. 33'. ...	...	22,7	38,6	55,2	...	12.23.38,85						1.35,32		12.22.3,53	B.
	(g) β Corvi.	30,2	48,1	5,7	23,7	41,6	12.28.5,86	1.36,04								B.
	* N.P.D. 88°. 9'. ...	39,8	56,1	12,2	28,4	45,2	12.32.12,34						1.35,36		12.30.36,98	B.
	Bessel xii. 557. ...	...	40,3	56,3	12,2	...	12.34.56,29						1.35,40		12.33.20,89	B.
	— xii. 601. ...	52,9	8,7	25,7	41,9	58,8	12.37.25,60						1.35,37		12.35.50,23	B.
	— xii. 645. ...	...	11,5	27,9	44,5	...	12.39.27,99						1.35,36		12.37.52,63	B.
	— xii. 726. ...	23,9	40,7	57,1	13,4	30,0	12.43.57,02						1.35,37		12.42.21,65	B.
	— xii. 781. ...	48,1	4,7	20,2	37,7	54,0	12.47.20,94						1.35,41		12.45.45,53	B.
	* N.P.D. 90°. 18'. ...	52,8	9,1	26,0	42,3	58,8	12.49.25,80						1.35,42		12.47.50,38	B.
	(h) Bessel xii. 867. ...	47,8	4,0	20,4	37,1	53,7	12.52.20,60						1.35,41		12.50.45,19	B.
	(i) H. C. 24249.	38,7	54,9	11,3	27,9	44,4	12.56.11,44						1.35,38		12.54.36,06	B.
	Spica.	18,8	35,2	52,2	8,8	25,6	13.18.52,12	1.35,57								B.
	H. C. 25158.	28,1	44,8	1,1	17,8	34,3	13.31.1,22						1.35,55		13.29.25,67	B.
	Bessel xiii. 559. ...	...	42,8	...	16,0	32,8	13.33.59,47						1.35,59		13.32.23,88	B.
	— xiii. 616. ...	45,8	2,1	18,7	35,1	51,6	13.37.18,66						1.35,58		13.35.43,08	B.
	— xiii. 669. ...	33,2	49,1	5,7	22,4	38,8	13.40.5,84						1.35,53		13.38.30,31	B.
	— xiii. 721. ...	41,1	57,8	14,1	30,7	47,4	13.43.14,22						1.35,60		13.41.38,62	B.
	— xiii. 756. ...	...	10,8	27,1	48,9	...	13.45.27,29						1.35,57		13.43.51,72	B.
	(d) B.A.C. 4647.	8,0	24,4	40,9	57,8	14,2	13.48.41,06						1.35,60		13.47.5,46	B.
	Bessel xiii. 858. ...	...	8,0	24,4	41,1	...	13.51.24,52						1.35,55		13.49.43,97	B.
	— xiii. 886. ...	...	55,2	12,0	28,7	...	13.53.11,99						1.35,55		13.51.36,44	B.
	— xiii. 928. ...	55,1	11,8	28,1	44,5	1,1	13.55.28,12						1.35,55		13.53.52,57	B.
	(d) * N.P.D. 94°. 49'. ...	59,0	15,3	31,8	48,0	4,9	13.58.31,80						1.35,55		13.56.56,25	B.
	Bessel xiii. 1043. ...	...	13,0	29,7	46,0	...	14.0.29,59						-1.35,55		13.58.54,04	B.
	(k) α ² Libræ. ....	...	52,8	9,8	26,9	44,0	14.44.9,87	1.35,71								B.
May 15	(l) Polaris SP. R.	52,0	23,5	53,5	21,0	54,0	13.5.52,80	-1.20,81		0,94						B.

INTERVALS for an Equatorial Star of wires I, II, III, IV, V, from the mean of the five wires, -32°.824, -16°.441, -0°.089, +16°.468, +32°.886.

(a) Corrected by -1' for error of counting. (b) A strong north wind disturbed the mercury: wire IV was considered good. (c) The wind directly north: wires I and II could not be obtained. (d) Indefinite. (e) Cloudy. (f) Had a nebulous appearance. (g) No definition. (h) Clouds passing. (i) Overcast. (k) Very badly defined. (l) All the wires good except the last.

Month and Day.	NAME OF STAR.	Seconds of transit over the five wires.					Concluded transit over the mean of the five wires.	Correction of transit-time for known star.		Adopted gaining rate of clock.	Correction for 1 ^h of increase of R.A.	Correction for 1 ^h of increase of N.P.D.	Correction of transit-time for unknown stars.		Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V										
		s.	s.	s.	s.	s.		h.	m.				s.	m.		
May 15	(a) Spica.....	26,6	43,2	59,9	16,8	33,3	13. 18. 59,96	- 1. 43,43	0,94	- 0,033	- 0,021					B.
	(b) α ² Libræ.....	43,8	0,9	17,8	34,9	51,9	14. 44. 17,86	1. 43,65								B.
May 16	Polaris R.	45,5	....	....	....	....	1. 6. 42,18	2. 9,45								B.
May 22	Bessel xiii. 870 ...	10,0	27,5	43,6	0,9	17,4	12. 52. 43,88		0,92	- 0,033	- 0,071	- 1. 48,97	12. 50. 54,91			T.
	(c) * N.P.D. 92°. 9' ..	....	6,0	21,4	37,6	....	12. 57. 21,69					1. 48,98	12. 55. 32,71			T.
	Bessel xiii. 1058 ...	17,0	33,8	50,9	7,4	24,0	13. 2. 50,62					1. 49,20	13. 1. 1,42			T.
	— xiii. 27 ...	....	....	44,1	2,0	18,4	13. 4. 44,03					1. 49,12	13. 2. 54,91			T.
	(d) — xiii. 74 ...	39,6	56,2	13,2	30,2	46,9	13. 7. 13,22					1. 49,12	13. 5. 24,10			T.
	H. C. 24610.....	31,3	48,1	4,6	21,9	38,2	13. 10. 4,82					1. 49,18	13. 8. 15,64			T.
	Bessel xiii. 169. ...	....	2,0	18,3	35,9	....	13. 12. 18,75					1. 49,19	13. 10. 29,56			T.
	— xiii. 215 ...	29,1	45,4	2,1	18,5	34,9	13. 15. 2,00					1. 49,19	13. 13. 12,81			T.
	Spica.....	32,8	49,6	6,3	23,0	39,8	13. 19. 6,30	1. 49,80								T.
	Bessel xiii. 320 ...	7,0	23,4	41,1	57,9	14,0	13. 21. 40,68					1. 49,27	13. 19. 51,41			T.
	l ^h Virginis.....	51,0	7,2	24,3	40,9	57,6	13. 24. 24,20					1. 49,24	13. 22. 34,96			T.
	(e) Bessel xiii. 409 ..	....	12,1	28,4	45,2	....	13. 26. 28,59					1. 49,22	13. 24. 39,37			T.
	H. C. 25106.....	29,1	46,2	2,5	19,2	35,9	13. 29. 2,58					1. 49,29	13. 27. 13,29			T.
	Bessel xiii. 507 ...	3,2	20,1	37,4	54,2	10,6	13. 31. 37,10					1. 49,27	13. 29. 47,83			T.
	m Virginis.....	58,9	15,5	32,6	48,9	5,5	13. 35. 32,28					1. 49,41	13. 33. 42,87			T.
	Bessel xiii. 661 ...	17,2	34,0	49,9	7,0	23,7	13. 39. 50,36					1. 49,36	13. 33. 1,00			T.
	— xiv. 248 ...	....	38,2	54,6	11,2	27,8	14. 15. 54,68					1. 49,41	14. 14. 5,27			T.
	* N.P.D. 98°. 23' ..	3,0	19,2	36,0	52,8	8,9	14. 19. 35,98					1. 49,48	14. 17. 46,50			T.
	* N.P.D. 93°. 15' ..	51,8	8,3	25,1	42,9	59,4	14. 22. 25,50					1. 49,47	14. 20. 36,03			T.
	* N.P.D. 97°. 58' ..	....	33,2	50,0	7,3	....	14. 24. 50,19					1. 49,46	14. 23. 0,73			T.
	* N.P.D. 98°. 50' ..	....	26,6	43,1	0,7	....	14. 27. 43,49					1. 49,52	14. 25. 53,97			T.
	Bessel xiv. 516 ...	31,8	48,5	5,6	22,3	39,0	14. 30. 5,44					1. 49,53	14. 28. 15,91			T.
	— xiv. 608 ...	28,2	45,0	1,6	18,4	35,2	14. 35. 1,68					1. 49,65	14. 33. 12,03			T.
	α ² Libræ.....	49,6	7,1	24,0	41,1	58,2	14. 44. 24,00	1. 49,77								T.
	Bessel xiv. 1066 ..	30,1	46,9	3,6	20,5	37,2	14. 58. 3,66					1. 49,78	14. 56. 13,88			T.
	(f) — xiv. 1099 ..	....	52,0	9,2	26,2	....	15. 0. 9,15					1. 49,78	14. 58. 19,37			T.
	H. C. 27583.....	54,6	11,5	28,3	45,0	1,9	15. 3. 28,26					1. 49,79	15. 1. 38,47			T.
	Bessel xv. 79 ...	45,3	2,2	18,9	35,9	53,0	15. 7. 19,06					1. 49,86	15. 5. 29,20			T.
	— xv. 148 ...	54,1	11,2	29,2	46,0	3,0	15. 10. 28,70					1. 49,91	15. 8. 38,79			T.
	— xv. 206 ...	8,0	25,9	42,7	59,6	16,2	15. 13. 42,48					1. 49,82	15. 11. 52,66			T.
	α Serpentis.....	7,5	24,3	40,8	57,2	13,8	15. 38. 40,72	1. 48,74								T.
	δ Ophiuchi.....	44,2	0,8	17,1	33,6	50,2	16. 8. 17,18	1. 48,86								T.
May 23	Bessel xiii. 124 ...	30,1	46,4	2,9	19,1	35,6	13. 10. 2,82					1. 49,95	13. 8. 12,87			T.
	(g) — xiii. 209 ...	13,1	29,3	....	3,3	19,3	13. 14. 46,27					1. 49,98	13. 12. 56,29			T.
	(h) Spica.....	33,5	50,3	6,8	23,6	40,4	13. 19. 6,92	1. 50,42								T.
	Bessel xiii. 336 ..	31,3	47,9	4,4	20,8	37,5	13. 23. 4,38					1. 50,16	13. 21. 14,22			T.
	— xiii. 395 ..	20,1	36,5	53,0	9,7	26,1	13. 25. 53,08					1. 50,17	13. 24. 2,91			T.
	H. C. 25106.....	30,8	47,3	3,8	20,3	36,8	13. 29. 3,80					1. 50,24	13. 27. 13,56			T.
	81 Virginis.....	59,1	15,6	33,3	50,1	6,6	13. 31. 32,94					1. 50,30	13. 29. 42,64			T.
	Bessel xiii. 563 ...	52,5	9,1	27,0	43,4	0,0	13. 34. 26,40					1. 50,12	13. 32. 36,28			T.
	B.A.C. 4572.....	22,9	39,3	55,6	12,1	28,7	13. 37. 55,72					1. 50,13	13. 36. 5,59			T.
	* N.P.D. 94°. 41' ..	21,3	37,5	54,2	10,5	27,2	13. 40. 54,14					1. 50,14	13. 39. 4,00			T.
	Bessel xiii. 717 ...	....	59,7	15,7	34,1	....	13. 43. 16,52					1. 50,16	13. 41. 26,36			T.
	— xiii. 1081 ..	57,9	14,1	30,8	47,3	4,1	14. 2. 30,84					1. 50,40	14. 0. 40,44			T.
	(i) κ Virginis.....	9,1	26,9	43,6	0,3	16,9	14. 6. 43,36	1. 50,61								T.
May 29	β Corvi.....	46,3	4,1	21,9	39,8	57,6	12. 28. 21,94	1. 52,30								T.
	Polaris SP.....	20,0	52,0	26,0	52,0	19,8	13. 7. 21,96	2. 41,20								T.
	Spica.....	....	52,0	9,1	25,7	....	13. 19. 8,95	1. 52,48								T.
	α Serpentis.....	11,2	27,7	44,1	0,9	17,6	15. 38. 44,30	1. 52,29								T.
May 31	Polaris SP.....	....	3,3	33,5	54,0	31,5	13. 7. 30,96	2. 48,83	0,57	- 0,024	- 0,016					T.
	(k) Spica.....	....	53,6	10,2	27,0	43,8	13. 19. 10,30	1. 53,84								T.

INTERVALS for an Equatorial Star of wires I, II, III, IV, V, from the mean of the five wires, - 32', 824, - 16', 441, - 0', 089, + 16', 468, + 32', 886.

(a) Faint from cloud. (b) The counting was 1^s in advance of the clock. (c) Corrected by + 1^s for erroneous counting. The star was very faint.
 (d) Corrected by + 30^s. (e) Extremely faint. (f) Corrected by - 2^s for error of counting. (g) Not good. (h) The noted times have been increased 1^s conjecturally. (i) The observed time was 1^m greater. The assumed apparent R.A. of this star was deduced from the Greenwich 12-year Catalogue.
 (k) The noted times were 1^s less, giving a discordant clock-error. Either an error of counting was committed in the hurry of observing Spica so shortly after wire IV of Polaris SP, or, as I rather think, the instrument takes time to settle after being moved through large angles.

Month and Day.	NAME OF STAR.	Seconds of transit over the five wires.					Concluded transit over the mean of the five wires.			Correction of transit-time for known star.		Adopted guining rate of clock.	Correction for 1 ^h of increase of R.A.	Correction for 1 ^h of increase of N.P.D.	Correction of transit-time for unknown stars.		Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V														
		s.	s.	s.	s.	s.	h.	m.	s.	m.	s.	s.	s.	s.	m.	s.	h.	m.	s.	
May 31	(a) B.A.C. 4576.....	1,4	18,1	35,1	52,3	9,2	13.	38.	35,22			0,57	-0,024	-0,016	-1.	54,05	13.	36.	41,17	T.
	B.A.C. 4593.....	54,1	10,3	....	44,2	0,6	13.	41.	27,28						1.	53,92	13.	39.	33,36	T.
	(b) Bessel xiv. 970...	12,1	28,4	46,4	3,4	20,3	13.	57.	46,12						1.	54,01	13.	55.	52,11	T.
	9 ^h Virginis.....	....	....	13,0	30,5	47,3	14.	0.	13,68						1.	53,97	13.	58.	19,71	T.
	Bessel xiv. 1089...	27,3	44,0	1,4	17,9	34,4	14.	3.	1,00						1.	53,96	14.	1.	7,04	T.
	— xiv. 83....	....	7,8	24,6	41,1	....	14.	7.	24,52						1.	53,97	14.	5.	30,55	T.
	(c) — xiv. 145...	....	26,6	44,4	1,1	....	14.	10.	44,05						1.	53,97	14.	8.	50,08	T.
	— xiv. 231...	32,6	49,5	6,1	22,8	39,5	14.	15.	6,10						1.	54,02	14.	13.	12,08	T.
	B.A.C. 4772.....	57,1	13,6	30,5	47,3	4,1	14.	18.	30,52						1.	54,02	14.	16.	36,50	T.
	(c)(d) Bessel xiv. 333	....	10,0	25,2	43,0	....	14.	20.	26,09						1.	54,02	14.	18.	32,07	T.
	— xiv. 418.	16,3	33,2	49,9	6,9	23,6	14.	24.	49,98						1.	54,06	14.	22.	55,92	T.
	— xiv. 469.	18,7	35,3	52,3	9,1	25,8	14.	27.	52,24						1.	54,06	14.	25.	58,18	T.
	(e) B.A.C. 4828.....	....	36,3	53,2	11,1	....	14.	30.	53,55						1.	54,04	14.	28.	59,51	T.
	Bessel xiv. 583...	....	13,8	30,2	47,3	....	14.	33.	30,45						1.	54,04	14.	31.	36,41	T.
	B.A.C. 4818.....	....	30,2	46,8	4,0	....	14.	35.	47,02						1.	54,04	14.	33.	52,98	T.
	Bessel xiv. 680...	24,7	41,3	58,1	14,9	31,7	14.	38.	58,14						1.	54,06	14.	37.	4,08	T.
	α ^a Libræ.....	54,2	11,2	28,3	45,3	2,4	14.	44.	28,28	-1.	54,03									T.
β ^h Scorpii.....	....	19,1	36,2	53,9	....	15.	58.	36,42	1.	54,22									T.	
δ Ophiuchi.....	49,7	6,1	22,4	39,0	55,6	16.	8.	22,56	1.	54,16									T.	
Antares.....	29,6	48,0	6,2	24,6	43,0	16.	22.	6,28	1.	54,28									T.	
June 1	Polaris SP. R.	10,2	41,3	10,0	....	8,0	13.	6.	9,50	1.	26,62	0,44	-0,018	-0,003						T.
	(f) Spica.....	37,6	54,3	10,9	27,8	44,5	13.	19.	11,02	1.	54,57									T.
	(g) α ^a Libræ.....	....	11,7	28,6	45,9	....	14.	44.	28,75	1.	54,50									T.
	Bessel xiv. 990...	57,2	14,2	31,0	48,5	5,2	14.	54.	31,22						1.	54,56	14.	52.	36,66	T.
	H. C. 27385.....	....	46,2	3,3	21,9	....	14.	57.	3,82						1.	54,56	14.	55.	9,26	T.
	ν ^h Libræ.....	35,5	52,6	9,5	26,7	43,9	15.	0.	9,64						1.	54,56	14.	58.	15,08	T.
	ζ ^h Libræ.....	....	23,1	40,4	57,9	....	15.	6.	40,49						1.	54,57	15.	4.	45,92	T.
	(h)* N.P.D. 109°. 26'.	36,3	46,1	....	21,1	39,0	15.	10.	4,15						1.	54,57	15.	8.	9,58	T.
	(h) 28 Libræ.....	43,0	0,1	17,0	34,6	51,8	15.	14.	17,30						1.	54,57	15.	12.	22,73	T.
	H. C. 28117.....	32,3	49,8	7,2	24,8	42,1	15.	20.	7,24						1.	54,57	15.	18.	12,67	T.
	β ^h Scorpii.....	1,9	19,4	36,9	54,2	11,6	15.	58.	36,80	1.	54,59									T.
	(i) Polaris R.....	....	....	53,5	26,0	53,5	1.	6.	56,15	2.	12,83									T.
	June 2	Polaris SP.....	30,0	0,5	28,0	51,0	21,5	13.	7.	26,20	2.	42,52	0,24	-0,010	-0,008					
(f) Spica.....		38,0	54,7	11,3	28,0	44,9	13.	19.	11,38	1.	54,93									T.
(k) H. C. 26546.....		10,2	27,6	45,0	2,6	20,0	14.	27.	45,08						1.	54,92	14.	25.	50,16	T.
— 26719.....		18,6	36,0	53,1	10,9	28,2	14.	34.	53,36						1.	54,93	14.	32.	58,43	T.
(l) — 26863.....		56,0	13,4	31,3	49,1	6,5	14.	39.	31,26						1.	54,93	14.	37.	36,33	T.
α ^a Libræ.....		55,3	12,2	29,1	46,2	3,2	14.	44.	29,20	1.	54,95									T.
H. C. 27219.....		2,1	19,6	36,6	54,0	11,1	14.	51.	36,68						1.	54,91	14.	49.	41,77	T.
* N.P.D. 108°. 44'.		35,0	52,2	9,7	26,9	44,5	14.	56.	9,66						1.	54,93	14.	54.	14,73	T.
H. C. 27451.....		2,4	20,9	38,1	55,6	13,0	14.	59.	38,00						1.	54,93	14.	57.	43,07	T.
(h) β ^h Libræ.....		....	32,6	50,2	7,1	23,7	15.	10.	50,10	1.	54,78									T.
β ^h Scorpii.....	2,1	19,7	37,1	54,6	12,0	15.	58.	37,10	1.	54,89									T.	
June 4	(m) Polaris SP. R.	22,5	49,5	21,0	45,0	14,0	13.	6.	18,40	1.	33,09									T.
	(h)(f) Spica.....	37,6	54,4	11,1	27,9	44,6	13.	19.	11,12	1.	54,69									T.
June 8	Bessel xiv. 671...	....	21,3	37,8	54,6	....	14.	38.	37,92			0,32	-0,013	0,000	1.	55,37	14.	36.	42,55	T.
	— xiv. 725...	....	35,3	53,1	10,0	....	14.	40.	52,82						1.	55,37	14.	38.	57,45	T.
	α ^a Libræ.....	55,7	12,6	29,6	47,0	4,0	14.	44.	29,78	1.	55,55									T.
	Bessel xiv. 852...	29,3	46,3	3,2	20,0	37,0	14.	47.	3,16						1.	55,37	14.	45.	7,79	T.
	H. C. 27159.....	10,5	28,0	45,1	2,6	20,0	14.	49.	45,24						1.	55,37	14.	47.	49,87	T.
	(n) 18 Libræ.....	....	24,5	42,1	57,6	....	14.	52.	41,42						1.	55,37	14.	50.	46,05	T.
	Bessel xiv. 1008..	54,2	11,0	27,9	44,6	1,4	14.	55.	27,82						1.	55,37	14.	53.	32,45	T.
	H. C. 27418.....	46,9	3,9	20,7	37,7	54,6	14.	57.	20,76						1.	55,37	14.	55.	25,39	T.
	— 27519.....	....	47,1	5,8	23,5	....	15.	2.	5,94						1.	55,37	15.	0.	10,12	T.
	(o)* N.P.D. 109°. 41'.	2,1	19,5	37,1	54,3	11,0	15.	6.	36,80						-1.	55,37	15.	4.	41,43	T.

INTERVALS for an Equatorial Star of wires I, II, III, IV, V, from the mean of the five wires, -32°, 824, -16°, 441, -0°, 089, +16°, 468, +32°, 886.

- (a) The observation was thought to be 1^h slow; it has been altered accordingly. (b) At wires I and II the star was distant from the middle of the field.
 (c) The star was not brought to the middle of the field till after wire II. (d) Discordant intervals. It is supposed that the circle was clamped after wire III.
 (e) Perhaps 1^h slow. The observer was often interrupted by noise, and could not well keep the count in the earlier part of the evening. (f) Corrected by +1^h conjecturally. See the note to Spica May 31. (g) Steady. Wire II has been increased 1^h by a consideration of the intervals. (h) Cloudy.
 (i) Considered good. (k) The Moon nearly on the meridian and stars consequently faint. (l) The following of two of equal magnitude. (m) Steady.
 (n) The observed times were thought to be 1^h slow and have been altered accordingly. (o) Interruption by noise. The noted times are probably 1^h slow.

Month and Day.	NAME OF STAR.	Seconds of transit over the five wires.					Concluded transit over the mean of the five wires.	Correction of transit-time for known stars.		Adopted gaining rate of clock.	Correction for 1 ^h of increase of R.A.	Correction for 1 ^o of increase of N.P.D.	Correction of transit-time for unknown stars		Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V										
		s.	s.	s.	s.	s.										
June 8	(a) β Libræ	17,2	33,9	50,4	7,1	23,9	15. 10. 50,50	- 1. 55,18		0,32	- 0,013	0,000				T.
June 9	Bessel xiv. 491 ...	20,0	37,0	54,1	11,0	28,0	14. 28. 54,02			0,22	- 0,009	0,000	- 1. 55,68		14. 26. 58,34	T.
	— xiv. 557 ...	23,2	40,7	57,3	14,0	30,8	14. 31. 57,20						1. 55,68		14. 30. 1,52	T.
	(b) — xiv. 607 ...	27,8	45,9	2,4	19,2	36,2	14. 35. 2,30						1. 55,69		14. 33. 6,61	T.
	(b) — xiv. 725 ...	20,0	36,7	53,2	10,1	27,0	14. 40. 53,40						1. 55,69		14. 38. 57,71	T.
	(c) α^2 Libræ	55,7	13,1	29,6	46,9	3,9	14. 44. 29,84	1. 55,61								T.
	(d) Bessel xiv. 852 ...	28,9	45,3	3,9	19,7	36,8	14. 47. 2,92						1. 55,69		14. 45. 7,23	T.
	— xiv. 931 ...	46,3	3,0	20,5	37,2	54,2	14. 51. 20,24						1. 55,69		14. 49. 24,55	T.
	H. C. 27313	23,2	40,4	57,9	15,2	32,4	14. 54. 57,82						1. 55,69		14. 53. 2,13	T.
	(b) — 27488	9,9	27,4	45,2	2,7	20,3	15. 0. 45,10						1. 55,69		14. 58. 49,41	T.
	Bessel xv. 52	16,8	33,9	50,8	8,0	24,6	15. 5. 50,82						1. 55,69		15. 3. 55,13	T.
	β Libræ	17,8	34,3	51,0	7,6	24,7	15. 10. 51,08	1. 55,76								T.
	* N.P.D. 100°. 6'	49,8	6,5	23,1	39,9	56,8	15. 16. 23,22						1. 55,69		15. 14. 27,53	T.
	H. C. 28136	31,4	48,9	5,9	23,0	40,0	15. 21. 5,84						1. 55,69		15. 19. 10,15	T.
	ζ^2 Libræ .....	...	50,6	7,7	25,0	...	15. 24. 7,79						1. 55,69		15. 22. 12,10	T.
	(e) Bessel xv. 472 ...	3,8	21,0	37,4	55,1	13,0	15. 27. 37,66						1. 55,69		15. 25. 41,97	T.
	(f) * N.P.D. 105°. 13'	39,7	56,6	13,8	30,5	47,8	15. 31. 13,68						1. 55,69		15. 29. 17,99	T.
	(g) Bessel xv. 637 ...	35,3	52,3	9,6	26,5	43,5	15. 35. 9,44						1. 55,70		15. 33. 13,74	T.
	* N.P.D. 105°. 41'	16,2	33,4	50,2	7,6	25,0	15. 39. 50,48						1. 55,70		15. 37. 54,78	T.
	H. C. 28780	38,2	55,5	12,4	29,8	46,9	15. 43. 12,56						1. 55,70		15. 41. 16,86	T.
	* N.P.D. 107°. 31'	2,7	19,9	37,1	54,3	11,2	15. 46. 37,04						1. 55,70		15. 44. 41,34	T.
	* N.P.D. 107°. 34'	...	52,0	9,0	26,3	...	15. 49. 9,12						1. 55,70		15. 47. 13,42	T.
	* N.P.D. 105°. 47'	4,0	21,1	38,2	54,7	12,0	15. 52. 38,00						1. 55,70		15. 50. 42,30	T.
	H. C. 29130 .....	...	10,9	28,0	45,7	...	15. 55. 28,22						1. 55,70		15. 53. 32,52	T.
	β^1 Scorpii	3,3	20,8	38,0	55,6	13,1	15. 58. 38,16	1. 55,91								T.
	* N.P.D. 105°. 41'	31,3	48,8	5,5	22,3	39,4	16. 2. 5,46						1. 55,70		16. 0. 9,76	T.
	* N.P.D. 107°. 43'	9,0	26,2	43,4	0,7	17,9	16. 6. 43,44						1. 55,70		16. 4. 47,74	T.
	(h) * N.P.D. 107°. 54'	34,0	...	7,9	...	42,3	16. 11. 8,08						1. 55,70		16. 9. 12,38	T.
	H. C. 29778	38,1	55,2	12,2	29,6	46,9	16. 16. 12,40						1. 55,70		16. 14. 16,70	T.
	Antares .....	...	49,3	7,3	25,9	44,2	16. 22. 7,54	1. 55,47								T.
June 11	(i) Spica	38,8	56,2	13,1	29,9	46,6	13. 19. 12,92	1. 56,54		0,22	- 0,009	- 0,020				T.
	Bessel xiv. 516 ...	39,5	56,1	12,9	29,4	46,1	14. 30. 12,80						1. 56,47		14. 28. 16,33	T.
	(k) H. C. 26691 .....	...	0,3	17,2	34,6	...	14. 33. 17,39						1. 56,61		14. 31. 20,78	T.
	Bessel xiv. 641 ...	...	38,9	55,5	12,2	28,8	14. 36. 55,51						1. 56,50		14. 34. 59,01	T.
	— xiv. 739 ...	6,5	23,3	40,0	56,8	13,7	14. 41. 40,06						1. 56,54		14. 39. 43,52	T.
	α^2 Libræ .....	...	14,0	30,6	47,9	...	14. 44. 30,85	1. 56,62								T.
	(l) Bessel xiv. 891 ...	37,0	54,0	10,8	27,7	45,0	14. 49. 10,90						1. 56,59		14. 47. 14,31	T.
	(m) H. C. 27270	32,0	49,6	7,2	25,0	42,9	14. 53. 7,34						1. 56,71		14. 51. 10,63	T.
	Bessel xiv. 1031 ...	17,8	34,6	51,3	8,0	25,1	14. 56. 51,36						1. 56,55		14. 54. 54,81	T.
	— xiv. 1109 ...	11,9	29,0	45,8	...	...	15. 0. 45,86						1. 56,58		14. 58. 49,28	T.
	— xv. 61 ...	45,3	2,4	19,3	36,3	53,2	15. 6. 19,30						1. 56,58		15. 4. 22,72	T.
	— xv. 122 ...	47,9	4,9	21,7	38,5	54,5	15. 9. 21,50						1. 56,58		15. 7. 24,92	T.
	— xv. 215 ...	39,2	56,0	12,9	30,0	47,0	15. 14. 13,02						1. 56,58		15. 12. 16,44	T.
	— xv. 314 ...	36,1	53,0	10,1	27,2	44,3	15. 19. 10,14						1. 56,60		15. 17. 13,54	T.
	ζ^2 Libræ	27,2	44,2	1,3	18,6	36,0	15. 23. 1,46						1. 56,64		15. 21. 4,82	T.
	(n) ζ^4 Libræ	48,5	5,6	22,9	40,1	57,1	15. 26. 22,84						1. 56,63		15. 24. 26,21	T.
	(n) Bessel xv. 666 ...	11,9	28,6	45,3	2,2	19,2	15. 36. 45,44						1. 56,55		15. 34. 48,89	T.
	(o) δ Ophiuchi	51,9	8,3	24,6	41,1	57,9	16. 8. 24,76	1. 56,31								T.
June 13	α^2 Libræ	57,5	14,2	31,1	48,5	5,4	14. 44. 31,34	1. 57,12		0,38						T.
	β^1 Scorpii	5,0	22,2	39,8	57,2	14,6	15. 58. 39,76	1. 57,49								T.
	δ Ophiuchi	52,8	9,2	25,5	42,1	58,4	16. 8. 25,60	1. 57,14								T.
June 14	β^1 Scorpii	5,3	22,9	40,0	57,6	15,0	15. 58. 40,16	- 1. 57,89								T.

INTERVALS for an Equatorial Star of wires I, II, III, IV, V, from the mean of the five wires, - 32',824, - 16',441, - 0',089, + 16',468, + 32',886.

(a) Indefinite. (b) Extremely faint. (c) Confused at first. (d) The noted times were thought to be 1^s slow and have been altered accordingly. (e) The observation was thought to be 1^s in error: no alteration has been made. (f) A star of equal magnitude preceded. (g) All the wires except the first have been increased 1^s. During this and preceding observations the observer was much disturbed by noises. (h) Too faint for a satisfactory observation. (i) This observation of Spica, being unaccompanied by one of Polaris SP., presents no discordance in the clock-error. (k) Corrected by - 1^s for error in counting. (l) Very faint. (m) Doubtful on account of the faintness of the object. (n) Clouds. (o) Unsteady.

Month and Day.	NAME OF OBJECT.	Microscope Readings.		Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B						Int.	Ext.			
April 3	Zenith Point R.....	2.28,0	26,4	+4,1	10,024		178.42.27,70						C.
	* R. 8 ^h . 54 ^m . 39 ^s	4.43,5	40,2	+4,9			32.44.44,15	29,608	45,6	40,6	39,74	71.50.3,75	B.
	H. C. 17922.....	0.28,1	28,7				32.55.28,65				40,01	72.0.48,52	B.
	— 18020.....	0.5,5	6,9				32.50.6,25				39,87	71.55.25,98	B.
	— 18141.....	1.17,9	16,5				33.46.17,85				41,29	72.51.39,00	B.
	— 18243.....	2.38,9	37,4				32.47.39,45				39,81	71.52.59,12	B.
	(a) 83 Cancri.....	4.13,4	11,7				32.34.14,65				39,48	71.39.33,99	B.
	α Hydrae.....	4.16,3	14,5				58.54.17,50				102,40	98.0.39,76	B.
	(a) H. C. 19628.....	2.48,8	47,2				31.57.49,35	29,602	44,6	39,2	38,68	71.3.7,89	B.
	Regulus.....	2.28,0	25,9				38.12.28,15				48,61	77.17.56,62	B.
	H. C. 22180.....	0.10,0	11,0				33.45.10,60	29,614	43,4	37,0	41,58	72.50.32,04	B.
	(b) β Leonis.....	4.42,6	44,2				35.29.43,25				44,33	74.35.7,44	B.
	(b) * R. 11 ^h . 45 ^m . 7 ^s	4.33,6	34,5				36.19.33,85				45,68	75.24.59,39	B.
	* R. 11 ^h . 49 ^m . 53 ^s	3.28,8	25,0				33.38.28,60				41,41	72.43.49,87	B.
	* R. 11 ^h . 53 ^m . 33 ^s	2.56,0	54,8				34.12.56,85				42,30	73.18.19,01	B.
	H. C. 22700.....	3.8,5	7,0				35.13.9,30				43,88	74.18.33,04	B.
April 4	Zenith Point R.....	2.34,9	33,9	+5,6	10,350		178.42.28,57						B.
April 5	Bessel ix. 1046.....	1.38,9	39,4	+4,9			36.21.39,95	29,500	47,3	44,3	44,87	75.27.4,68	B.
	— ix. 1117.....	0.40,8	42,0				35.55.41,75				44,18	75.1.5,79	B.
	(b) * R. 10 ^h . 11 ^m . 9 ^s	4.19,4	19,0				35.29.18,85	29,516	45,6	42,9	43,63	74.34.42,34	T.
	(b) Bessel x. 317.....	3.45,0	47,0				35.53.47,85				44,28	74.59.11,99	T.
	ι Leonis.....	0.4,1	4,0				36.0.4,10				44,45	75.5.28,41	T.
April 7	* R. 9 ^h . 40 ^m . 41 ^s	1.11,3	11,0				36.26.11,75	29,359	48,9	45,8	44,65	75.31.36,26	T.
	23 Leonis.....	3.31,9	29,1				37.8.32,20				45,79	76.13.57,85	T.
	* R. 9 ^h . 45 ^m . 33 ^s	0.36,1	37,7				36.10.37,20				44,23	75.16.1,29	T.
	Bessel ix. 1046.....	1.40,6	40,6				36.21.41,45				44,52	75.27.5,83	T.
	H. C. 19536.....	3.51,1	48,1				35.13.51,45				42,87	74.24.14,18	T.
	* R. 9 ^h . 54 ^m . 33 ^s	2.29,0	25,9				35.22.28,65				42,96	74.27.51,47	T.
	34 Leonis.....	3.46,9	45,0				36.48.47,80				45,25	75.54.12,91	T.
	37 Leonis.....	0.57,0	57,0				35.25.57,45				44,64	75.31.21,95	T.
	H. C. 20024.....	3.47,9	45,3				35.28.48,45				43,13	74.34.11,44	T.
	42 Leonis.....	0.38,0	38,6				35.10.38,60				42,65	74.16.1,11	T.
	* R. 10 ^h . 16 ^m . 42 ^s	3.30,0	28,0				36.33.30,70				44,84	75.38.55,40	T.
	Bessel x. 325.....	1.4,9	5,1				36.31.5,55				44,78	75.36.30,19	T.
	(c) — x. 364.....	1.13,0	13,0				36.51.13,60				45,32	75.56.38,78	T.
	* R. 10 ^h . 24 ^m . 45 ^s	0.59,1	60,2				35.31.0,15				43,18	74.56.23,19	T.
April 11	(b) ρ Leonis.....	4.43,0	41,0	+5,5			40.49.41,85	29,732	41,7	37,4	53,75	79.55.14,49	T.
	Bessel x. 525.....	0.13,9	10,7				40.45.12,40				53,61	79.50.44,90	T.
	* R. 10 ^h . 33 ^m . 57 ^s	0.10,2	7,2				41.15.8,80				54,55	80.20.42,24	T.
	(b) * R. 10 ^h . 39 ^m . 5 ^s	4.18,1	15,0				41.9.16,50				54,37	80.14.49,41	T.
	Bessel x. 782.....	2.41,0	36,0				40.52.39,95				53,84	79.58.12,68	T.
	(d) * R. 10 ^h . 47 ^m . 56 ^s	1.63,9	59,4				41.32.2,75				55,09	80.37.36,73	T.
	* R. 10 ^h . 52 ^m . 34 ^s	3.42,5	36,5				41.33.41,50				55,15	80.39.15,54	T.
	Bessel x. 1021.....	0.51,2	48,0				41.55.50,05				55,86	81.1.24,80	T.
	* R. 10 ^h . 59 ^m . 58 ^s	2.51,2	47,0				41.42.50,65				55,44	80.48.24,98	T.
	(b) * R. 11 ^h . 13 ^m . 12 ^s	4.31,7	28,0				40.59.29,60				54,06	80.5.2,55	T.
	* R. 11 ^h . 16 ^m . 40 ^s	0.26,6	22,0				40.35.24,50				53,30	79.40.56,69	T.
	(a) Bessel xi. 344.....	1.7,9	3,7				40.36.6,40				53,32	79.41.38,61	T.
	* R. 11 ^h . 24 ^m . 29 ^s	3.58,3	53,0				41.8.57,80				54,36	80.14.31,05	T.
	Bessel xi. 501.....	0.29,5	25,0				41.30.27,50				55,05	80.36.1,41	T.
	— xi. 572.....	0.22,8	18,7				40.35.20,95				53,30	79.40.53,14	T.
	* R. 11 ^h . 37 ^m . 7 ^s	3.18,2	12,0				41.3.16,90				54,18	80.8.49,97	T.
	(c) γ Virginis.....	1.27,4	25,5				51.31.27,20				78,28	90.37.24,37	B.
	Bessel xii. 660.....	0.35,0	34,5				54.5.35,05				86,00	93.11.39,94	B.
	(b) — xii. 729.....	4.15,0	15,9				51.54.15,05				79,36	91.0.13,30	B.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Cloudy.

(b) Negative correction for Runs.

(c) This is H. C. 20304.

(d) Unsatisfactory bisection.

(e) The south star.

Month and Day.	NAME OF OBJECT.	Microscope Readings.		Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B										
		' "	" "	"	r.		° ' "	Inch.	Int.	Ext.	"	° ' "	
April 11	* R. 12 ^h . 46 ^m . 24 ^s ...	3.13,0	9,9	+5,5			51.33.13,20	29,732	41,7	37,4	78,37	90.39.10,46	B.
	Bessel XII. 861.....	3.20,7	17,2				52.8.20,75				80,04	91.14.19,68	B.
	(a) * R. 12 ^h . 53 ^m . 50 ^s ...	1.49,4	48,4				51.36.49,90				78,54	90.42.47,33	B.
	Bessel XII. 989.....	0.26,5	26,9				51.15.26,90				77,53	90.21.23,32	B.
April 14	* R. 10 ^h . 38 ^m . 7 ^s	3.6,1	4,9				42.8.7,20	29,504	44,0	39,7	55,57	81.13.41,66	T.
	Bessel x. 730.....	3.20,9	20,2				43.8.22,35				57,55	82.13.58,79	T.
	— x. 783.....	0.45,1	47,4				43.20.46,65				57,96	82.26.23,50	T.
	(b) — x. 854.....	4.47,8	50,0				42.29.48,75				56,27	81.35.23,91	T.
	— x. 888.....	2.46,4	45,8				42.42.47,60				56,70	81.48.23,19	T.
	— x. 935.....	2.20,3	20,4				42.52.21,60				57,02	81.57.57,51	T.
	B.A.C. 3780.....	0.51,9	53,6				42.30.53,20				56,31	81.36.28,40	T.
	Bessel x. 1053.....	2.25,8	25,2				42.57.26,80				57,18	82.3.2,87	T.
	— x. 1100.....	2.40,8	41,0				42.27.42,40				56,20	81.33.17,49	T.
	(a) * R. 11 ^h . 9 ^m . 19 ^s	0.26,0	26,6				42.20.26,50				55,96	81.26.1,35	T.
	Bessel XI. 197.....	2.50,1	50,0				43.12.51,60				57,69	82.18.28,18	T.
	(b) B.A.C. 3871.....	4.40,5	42,8				43.29.41,50				58,26	82.35.18,65	T.
	(b) Bessel XI. 307.....	4.47,2	49,3				44.19.48,15				59,98	83.25.27,02	T.
	— XI. 361.....	2.11,3	11,0				43.2.12,35				57,34	82.7.48,58	T.
	(b) * R. 11 ^h . 23 ^m . 39 ^s	4.36,0	36,8				41.19.36,20				54,02	80.25.9,11	T.
	Bessel XI. 449.....	1.46,5	47,0				41.31.47,75				54,40	80.37.21,04	T.
	— XI. 566.....	1.26,0	27,6				44.11.27,60				59,69	83.17.6,18	T.
	* R. 11 ^h . 34 ^m . 56 ^s	0.33,6	33,0				41.45.33,60				54,84	80.51.7,33	T.
	(c) ξ Virginis.....	3.39,9	38,7				41.48.41,30				54,94	80.54.15,13	T.
April 16	Zenith Point R.....	2.18,1	16,4	+6,6	9,501		178.42.29,11						
April 20	* R. 9 ^h . 56 ^m . 51 ^s	2.46,9	48,1	+5,7			35.2.49,10	29,699	39,2	36,3	43,80	74.8.12,44	B.
	* R. 10 ^h . 4 ^m . 54 ^s	2.33,3	31,7				35.17.33,95				44,19	74.22.57,68	B.
	Bessel x. 128.....	1.40,3	39,5				36.41.40,85				46,49	75.47.6,88	B.
	— x. 170.....	3.28,1	26,0				36.13.29,00				44,67	75.18.53,21	B.
	42 Leonis.....	0.37,8	38,0				35.10.38,25				44,01	74.16.1,80	B.
	(d) * R. 10 ^h . 16 ^m . 42 ^s	3.27,5	25,0				36.33.28,20				46,26	75.38.54,00	B.
	* R. 10 ^h . 20 ^m . 21 ^s	3.16,8	14,1				34.23.17,35				42,75	73.28.39,64	B.
	i Leonis.....	0.3,8	4,7				36.0.4,30				45,34	75.5.29,18	B.
	Bessel x. 499.....	0.59,8	58,5				38.30.59,70				49,61	77.36.28,85	B.
	H. C. 20571.....	1.50,6	49,7				37.21.51,20				47,62	76.27.18,36	B.
	Bessel x. 603.....	4.21,1	18,0				37.14.22,05				47,41	76.19.49,00	B.
	H. C. 20748.....	2.6,5	6,0				37.22.7,45				47,63	76.27.34,62	B.
	Bessel x. 803.....	0.9,0	8,5				38.45.8,85				50,03	77.50.38,42	B.
	— x. 875.....	3.55,1	51,5				39.58.55,55				52,24	79.4.27,33	B.
	— x. 931.....	2.23,6	21,0				38.12.23,65				49,07	77.17.52,26	B.
	(e) — x. 987.....	0.30,9	30,5				40.55.31,00				54,00	80.1.4,54	B.
	— x. 1041.....	0.25,5	24,1				38.0.25,05				48,72	77.5.53,31	B.
	* R. 11 ^h . 0 ^m . 56 ^s	2.25,3	23,0				41.17.25,50				54,69	80.22.59,73	B.
	(b) B.A.C. 3871.....	4.40,0	41,8				43.29.40,75	29,709	39,1	34,2	59,35	82.35.19,64	B.
	B.A.C. 3892.....	0.9,7	11,0				41.25.10,45				55,20	80.30.45,19	B.
	B.A.C. 3911.....	3.36,1	35,0				42.28.37,60				57,28	81.34.14,42	B.
	Bessel XI. 439.....	4.49,3	47,8				42.39.51,30				57,65	81.45.28,49	B.
	— XI. 495.....	3.30,5	29,8				42.43.32,15				57,78	81.49.9,47	B.
	— XI. 543.....	0.39,5	41,3				42.40.40,85				57,68	81.46.18,07	B.
	— XI. 617.....	1.12,4	9,1				43.41.11,45				59,75	82.46.50,74	B.
	ν Virginis.....	1.56,7	57,0				43.31.57,95				59,43	82.37.36,92	B.
	(f) B.A.C. 3996.....	2.42,4	42,2				44.52.43,85				62,28	83.58.25,67	B.
	* R. 11 ^h . 45 ^m . 40 ^s	3.61,6	59,3				46.24.2,75				65,68	85.29.47,97	B.
	* R. 11 ^h . 50 ^m . 4 ^s	3.17,2	15,4				44.43.18,20				61,94	83.48.59,68	B.
	δ Virginis.....	4.36,9	33,5				46.24.37,80				65,70	85.30.23,04	B.
	Bessel XI. 975.....	4.7,4	6,1				46.54.9,10				66,84	85.59.55,48	B.
	* R. 11 ^h . 59 ^m . 58 ^s ...	3.41,9	40,7				47.33.43,40				68,41	86.39.31,35	B.

ONE REVOLUTION of the MICROMETER = 20", 862. ONE INTERVAL from the middle wire for an Equatorial Star = 16", 6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8", 00.

(a) Very faint. (b) Negative correction for Runs. (c) Blazing: bisection not good. (d) Cloud. (e) Unsteady. (f) This is Bessel XI. 722.

Month and Day.	NAME OF OBJECT.	Microscope Readings.		Correction for Runs for 5'.	Micrometer Reading.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B						Int.	Ext.			
		" "	" "						" "	" "			
April 20	Bessel XII. 68.	4.44,9	42,3	+5,7			46.39.46,30	29,709	39,1	34,2	66,28	85.45.32,12	B.
	— XII. 138.	2.44,5	44,0				49.42.45,80				73,81	88.48.39,15	B.
	c Virginis.	0.7,3	7,7				46.45.7,55				66,49	85.50.53,58	B.
	Bessel XII. 260.	2.40,0	39,3				48.32.41,20				70,81	87.38.31,55	B.
	— XII. 312.	1.50,7	52,0				49.56.52,40				74,42	89.2.46,36	B.
	(a) — XII. 392.	4.32,8	33,8				48.44.33,05				71,31	87.50.23,90	B.
April 21	(a) * R. 10 ^b . 49 ^m . 55 ^s	4.54,7	57,4				41.4.56,00	29,844	39,8	39,1	54,24	80.10.29,78	B.
	H. C. 21170.	3.43,1	42,8				41.13.45,05				54,52	80.19.19,11	B.
	χ Leonis.	0.27,1	29,5				42.45.28,55				57,51	81.51.5,60	B.
	(b) Bessel x. 1096.	1.1,9	4,9				43.31.4,00				59,05	82.36.42,59	B.
	— XII. 269.	1.2,0	4,3				48.41.3,70	29,868	39,3	36,2	71,22	87.46.54,46	B.
	— XII. 376.	0.31,2	32,9				52.0.32,35				80,23	91.6.32,12	B.
	— XII. 490.	3.7,4	7,9				52.23.9,40				81,34	91.29.10,28	B.
	(c) γ Virginis.	1.23,1	24,3				51.31.24,50				78,84	90.37.22,88	B.
	Bessel XII. 638.	1.7,4	9,2				49.1.8,95	29,558	43,8	42,4	72,09	88.7.0,58	B.
	— XII. 688.	1.11,6	13,0				50.26.13,00				75,82	89.32.8,36	B.
	(a) — XII. 736.	4.50,1	53,4				50.49.51,70				76,90	89.55.48,14	B.
	— XII. 781.	0.40,0	41,3				50.50.41,05				76,93	89.56.37,52	B.
	* R. 13 ^b . 8 ^m . 28 ^s	2.58,8	59,2				53.58.0,70				86,20	93.4.6,44	B.
	Bessel XIII. 197.	3.34,3	33,4				56.38.35,90				95,38	95.44.50,82	B.
	Zenith Point R.	2.39,4	37,7		10,557		178.42.28,46						T.
	Bessel x. 368.	4.27,6	23,4				40.34.28,05				52,42	79.40.0,01	T.
	49 Leonis.	3.51,0	48,9				41.28.52,15				54,11	80.34.25,80	T.
	* R. 10 ^b . 31 ^m . 1 ^s	1.3,5	4,8				42.46.4,75				56,59	81.51.40,88	T.
	(a) Bessel x. 661.	4.48,9	50,9				44.4.49,80				59,23	83.10.28,57	T.
	— x. 730.	3.19,3	17,7				43.8.20,40				57,33	82.13.57,27	T.
	— x. 810.	3.39,4	38,2				43.3.40,85				57,17	82.9.17,56	T.
	— x. 873.	3.36,6	34,8				43.8.37,75				57,34	82.14.14,63	T.
	— x. 928.	0.8,0	9,6				43.10.8,85				57,39	82.15.45,78	T.
	(a)(d) * R. 10 ^b . 55 ^m . 49 ^s	4.47,8	49,0				43.4.43,30				57,21	82.10.25,05	T.
	(a) ρ Leonis.	4.40,9	44,3				40.49.42,45	29,754	49,0	48,5	52,57	79.55.14,56	T.
	(a) 49 Leonis.	3.51,2	54,1				41.28.52,00				53,78	80.34.25,32	T.
	Bessel x. 525.	0.12,1	13,4				40.45.12,85				52,43	79.50.44,82	T.
	— x. 570.	1.56,8	57,0				41.16.58,00				53,41	80.22.30,95	T.
	* R. 10 ^b . 33 ^m . 57 ^s	0.12,1	14,1				41.15.13,20	29,754	48,4	46,7	53,36	80.20.46,10	T.
	Bessel x. 657.	3.1,5	0,3				41.13.2,60				53,29	80.18.35,43	T.
	(e) — x. 703.	1.1,1	3,1				43.46.2,65				58,25	82.51.40,44	T.
	— x. 782.	2.41,0	39,9				40.52.42,00				52,66	79.58.14,20	T.
	— x. 860.	0.28,3	29,2				44.15.29,05				59,25	83.21.7,84	T.
	— x. 907.	1.40,0	39,7				42.36.40,80				55,95	81.42.16,29	T.
	H. C. 21127.	0.13,6	15,3				44.35.14,55				59,93	83.40.54,02	T.
	(a) Bessel x. 1001.	4.37,8	39,0				41.54.38,20				54,60	81.0.12,34	T.
April 26	* R. 10 ^b . 58 ^m . 27 ^s	2.25,9	24,1				40.42.26,35	29,754	48,4	46,7	52,35	79.47.58,24	T.
	Bessel x. 1110.	4.46,1	44,0				42.9.47,80				55,08	81.15.22,42	T.
	— XI. 923.	0.57,8	60,0				46.25.59,45				64,16	85.31.43,15	B.
	(a) H. C. 22686.	4.30,5	32,4				46.29.31,15				64,29	85.35.14,98	B.
	(a)(d) H. C. 22771.	4.26,8	28,7				46.24.27,40	29,760	47,7	46,0	64,10	85.30.11,04	B.
	* R. 12 ^b . 4 ^m . 3 ^s	1.31,0	32,3				46.56.32,50				65,31	86.2.17,35	B.
	(d) * R. 12 ^b . 7 ^m . 40 ^s	4.26,2	25,5				48.34.28,35				69,17	87.40.17,06	B.
	* R. 12 ^b . 11 ^m . 18 ^s	4.1,1	0,8				48.54.3,25				69,97	87.59.52,76	B.
	* R. 12 ^b . 14 ^m . 19 ^s	1.15,6	17,9				49.1.17,50				70,27	88.7.7,31	B.
	Bessel XII. 463.	3.49,0	48,9				47.48.51,10				67,45	86.54.38,09	B.
	* R. 12 ^b . 32 ^m . 28 ^s	0.45,3	47,7				48.20.46,95				68,73	87.26.35,22	B.
	* R. 12. 36 ^m . 42 ^s	0.35,8	38,1				48.55.37,30				70,15	88.1.26,99	B.
	(a) Bessel XII. 664.	4.21,0	23,8				50.44.22,00	29,760	47,7	46,0	74,83	89.50.16,37	B.
	(f) * R. 12 ^b . 43 ^m . 12 ^s	1.27,8	29,2				51.36.29,35				77,20	90.42.26,09	B.

ONE REVOLUTION of the MICROMETER = 20".862. ONE INTERVAL from the middle wire for an Equatorial Star = 16".6.
 ASSUMED CO-LATITUDE = 37°.47'.8".00.

(a) Negative correction for Runs. (b) The N.P.D. by the observation has been increased 5'. Bessel's N.P.D. agrees with that of H. C. 21320, which is the same star. (c) The south star. (d) Cloudy. (e) Dense cloud passing. (f) Very faint.

Month and Day.	NAME OF OBJECT.	Microscope Readings.		Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refracti- on.	Apparent N.P.D. from the Observation.	Observer.
		A	B						Int.	Ext.			
		"	"										
April 28	Bessel x. 928.....	0. 6,6	8,0	+5,7			43. 10. 7,35	29,864	50,9	47,9	57,32	82. 15. 44,21	T.
	(a) — x. 1001.....	4. 38,9	41,4				41. 54. 39,95				54,87	81. 0. 14,36	T.
	— x. 1100.....	2. 43,9	42,9				42. 27. 44,95				55,93	81. 33. 20,42	T.
	— xi. 23.....	1. 59,0	58,9				42. 12. 0,10				55,42	81. 17. 35,06	T.
	— xi. 168.....	1. 1,9	2,1				44. 1. 2,55				59,04	83. 6. 41,13	T.
	(b) * R. 11 ^h . 12 ^m . 34 ^s	3. 21,7	20,4				45. 28. 22,95				62,12	84. 34. 4,61	T.
	(a) B.A.C. 3871.....	4. 40,0	41,2				43. 29. 40,45				57,98	82. 35. 17,97	T.
	(b) * R. 11 ^h . 18 ^m . 25 ^s	2. 39,0	39,5				43. 17. 40,80				57,58	82. 23. 17,92	T.
	(b) Bessel xi. 374.....	1. 27,1	28,0				43. 16. 28,40				57,54	82. 22. 5,48	T.
	April 30	(a) H. C. 20879.....	4. 39,1		39,8			45. 4. 39,25	30,210	52,0	48,5	61,89	84. 10. 20,68	T.
(a) Bessel x. 914.....		4. 9,0	10,2			40. 24. 9,10				52,58	79. 29. 41,22	T.	
(a) H. C. 21170.....		3. 46,9	46,0			41. 13. 45,75				54,13	80. 19. 19,42	T.	
(a) Bessel x. 1068.....		4. 49,0	47,9			44. 39. 48,35				61,01	83. 45. 28,90	T.	
* R. 11 ^h . 2 ^m . 8 ^s		2. 42,7	41,0			46. 22. 43,40				64,77	85. 28. 27,71	T.	
Bessel xi. 160.....		0. 41,0	40,1			45. 45. 40,95				63,39	84. 51. 23,88	T.	
— xi. 233.....		2. 20,1	17,4			45. 52. 20,05				63,64	84. 58. 3,23	T.	
H. C. 21696.....		2. 20,3	17,6			46. 27. 20,25				64,94	85. 33. 4,73	T.	
80 Leonis.....		2. 57,5	55,0			46. 12. 57,95				64,40	85. 18. 41,89	T.	
(c) * R. 11 ^h . 20 ^m . 42 ^s		1. 19,4	18,7			46. 36. 19,65				65,29	85. 42. 4,48	T.	
May 2	Bessel x. 1051.....	2. 49,7	49,4	+5,2		48. 52. 51,00	29,862	52,6	48,8	69,87	87. 58. 38,95	T.	
	(d) H. C. 21330.....	2. 5,0	4,0				46. 52. 5,60				65,10	85. 57. 48,78	T.
	Bessel xi. 188.....	1. 27,1	24,9				49. 21. 26,75				71,06	88. 27. 15,89	T.
	* R. 11 ^h . 14 ^m . 13 ^s	0. 26,7	25,0				50. 30. 26,05				74,03	89. 36. 18,16	T.
	79 Leonis.....	0. 11,0	12,1				48. 40. 11,65				69,35	87. 45. 59,08	T.
	(a) 83 Leonis.....	4. 17,7	18,0				47. 4. 17,50				65,56	86. 10. 1,14	T.
May 3	B.A.C. 3873.....	1. 42,8	42,0			49. 56. 43,30	29,835	55,4	48,0	72,62	89. 2. 34,00	T.	
	* R. 11 ^h . 17 ^m . 19 ^s	2. 38,3	38,5			49. 57. 39,75				72,66	89. 3. 30,49	T.	
	Bessel xi. 342.....	1. 54,9	54,6			49. 6. 55,75				70,53	88. 12. 44,33	T.	
	— xi. 429.....	3. 50,4	49,8			48. 43. 52,10				69,55	87. 49. 39,73	T.	
	* R. 11 ^h . 27 ^m . 24 ^s	3. 24,6	22,9			47. 13. 25,50				65,96	86. 19. 9,54	T.	
	H. C. 22038.....	1. 55,4	55,0			50. 36. 56,20				74,37	89. 42. 48,65	T.	
	Bessel xi. 562.....	0. 29,3	28,7			51. 30. 29,25				76,80	90. 36. 24,13	T.	
	— xi. 605.....	3. 25,6	23,6			49. 3. 26,35				70,36	88. 9. 14,79	T.	
	(a) — xi. 656.....	4. 24,8	23,9			48. 29. 24,05				68,96	87. 35. 11,09	T.	
	* R. 11 ^h . 39 ^m . 25 ^s	3. 20,0	17,0			48. 33. 20,65				69,12	87. 39. 7,85	T.	
	H. C. 22330.....	0. 3,9	4,5			47. 50. 4,25				67,39	86. 55. 49,72	T.	
	* R. 11 ^h . 44 ^m . 44 ^s	0. 49,3	49,2			46. 45. 49,65				64,90	85. 51. 32,63	T.	
	Bessel xi. 816.....	0. 52,0	52,6			46. 50. 52,75				65,10	85. 56. 35,93	T.	
	— xi. 891.....	0. 30,0	31,0			43. 10. 30,75				57,27	82. 16. 6,10	T.	
	— xi. 930.....	3. 43,2	42,0			43. 33. 44,50				58,05	82. 39. 20,63	T.	
	— xii. 47.....	2. 16,5	15,5			49. 52. 17,20				72,43	88. 58. 7,71	T.	
	— xii. 123.....	0. 25,3	23,0			46. 30. 24,35				64,32	85. 36. 6,75	T.	
	c Virginis.....	0. 11,0	8,9			46. 45. 10,05				64,88	85. 50. 53,01	T.	
	Bessel xii. 237.....	1. 17,6	15,4			46. 46. 17,20				64,92	85. 52. 0,20	T.	
	— xii. 269.....	1. 6,0	5,4			48. 41. 6,25				69,44	87. 46. 53,77	T.	
	— xii. 515.....	1. 21,9	21,5			49. 51. 22,40	29,834	55,2	47,3	72,49	88. 57. 12,97	T.	
	* R. 12 ^h . 32 ^m . 57 ^s	3. 41,4	38,4			49. 48. 41,80				72,38	88. 54. 32,26	T.	
	Bessel xii. 585.....	2. 13,8	12,1			55. 32. 14,05				89,24	94. 38. 21,37	T.	
	(c) — xii. 636.....	2. 46,1	45,5			53. 57. 47,25				84,13	93. 3. 49,46	T.	
	(a) — xii. 736.....	4. 56,1	56,4			50. 49. 56,20				75,06	89. 55. 49,34	T.	
	38 Virginis.....	2. 59,5	57,2			53. 37. 59,90				83,11	92. 44. 1,09	T.	
	Bessel xii. 820.....	2. 60,3	58,4			53. 38. 0,90				83,11	92. 44. 2,09	T.	
	(a) — xii. 870.....	4. 17,5	17,1			52. 59. 16,95				81,16	92. 5. 16,19	T.	
	(a) H. C. 24264.....	4. 43,3	44,9			53. 14. 43,95				81,93	92. 20. 43,96	T.	
	* R. 12 ^h . 58 ^m . 16 ^s	3. 24,2	22,0			53. 13. 24,85				81,86	92. 19. 24,79	T.	
	Bessel xii. 1053.....	1. 29,0	27,7			52. 46. 29,15				80,53	91. 52. 27,76	T.	

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Negative correction for Runs.

(b) Cloudy.

(c) Bisection not good.

(d) Misty.

(e) The southern star.

Month and Day.	NAME OF OBJECT.	Microscope Readings.		Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B						Int.	Ext.			
		" "	" "					Inch.	" "	" "		" "	
May 3	(a) Bessel XIII. 31.....	4.36,0	35,5	+5,2			52.49.35,55	29,834	55,2	47,3	80,68	91.55.34,31	T.
	— XIII. 529.....	2.48,3	48,0				58.32.49,60	29,829	53,8	49,7	99,80	97.39.7,48	B.
	(a) — XIII. 610.....	4.42,1	43,9				59.19.42,85				102,99	98.26.3,92	B.
	(a) — XIII. 667.....	4.24,3	24,9				58.34.24,30				99,91	97.40.42,29	B.
	* R. 13 ^h .41 ^m .42 ^s	1.23,8	23,6				62.41.24,45				118,64	101.48.1,17	B.
	* R. 13 ^h .45 ^m .44 ^s	3.17,8	16,0				64.48.18,60				130,53	103.55.7,21	B.
May 4	Bessel XI. 171.....	0.45,9	43,2				39.55.44,95	29,849	58,2	56,7	50,25	79.1.13,28	T.
	(a) — XI. 235.....	4.53,1	51,9				40.54.52,45				52,02	80.0.22,55	T.
	— XI. 295.....	2.33,5	29,0				42.7.32,55				54,27	81.13.4,90	T.
	— XI. 345.....	1.55,0	52,9				42.11.54,95				54,41	81.17.27,44	T.
	B.A.C. 3911.....	3.41,1	37,2				42.28.41,05				54,94	81.34.14,07	T.
	Bessel XI. 412.....	2.49,5	45,7				62.12.49,05				54,44	81.18.21,57	T.
	— XI. 446.....	0.49,5	47,2				42.5.48,75				54,22	81.11.21,05	T.
	— XI. 479.....	1.21,0	18,8				42.11.20,60				54,39	81.16.53,07	T.
	H. C. 22044.....	3.31,0	27,0				43.13.30,80				56,39	82.19.5,27	T.
	Bessel XI. 566.....	1.28,2	26,9				44.11.28,30				58,32	83.17.4,70	T.
	* R. 11 ^h .34 ^m .42 ^s	3.57,8	52,9				44.33.57,40				59,08	83.39.34,56	T.
	(a) Bessel XI. 665.....	4.35,1	33,0				47.14.33,80				64,87	86.20.16,75	T.
	H. C. 22440.....	1.8,8	7,0				44.16.8,45				58,48	83.21.45,01	T.
	Bessel XI. 861.....	1.22,1	20,6				43.46.22,05				57,48	82.51.57,61	T.
	— XI. 903.....	1.5,0	2,4				45.26.4,25				60,90	84.31.43,23	T.
	— XI. 951.....	0.12,9	11,2				45.55.12,15				61,94	85.0.52,17	T.
	(a) — XII. 68.....	4.48,5	48,9				46.39.48,60	29,856	56,0	57,2	63,68	85.45.30,36	T.
	— XII. 123.....	0.26,4	23,7				46.30.25,25				63,33	85.36.6,66	T.
	— XII. 163.....	2.58,9	56,8				46.57.59,40				64,35	86.3.41,83	T.
	— XII. 220.....	0.21,7	19,3				47.20.20,65				65,20	86.26.3,93	T.
	* R. 12 ^h .15 ^m .48 ^s	2.56,0	51,1				47.12.55,05				64,92	86.18.38,05	T.
	Bessel XII. 295.....	1.38,9	35,6				48.1.38,10				66,80	87.7.22,98	T.
	— XII. 342.....	2.60,8	56,9				46.47.60,40				63,98	85.53.42,46	T.
	* R. 12 ^h .23 ^m .35 ^s	1.8,8	5,0				47.46.7,45				66,19	86.51.51,72	T.
	Bessel XII. 493.....	0.42,1	40,8				50.15.41,80				72,30	89.21.32,18	T.
	— XII. 530.....	2.12,5	9,4				50.22.12,10				72,58	89.28.2,76	T.
	* R. 12 ^h .34 ^m .34 ^s	3.3,4	58,1				50.23.2,30				72,61	89.28.52,99	T.
May 7	B.A.C. 4104.....	0.41,1	38,2				46.0.40,00	30,002	48,0	40,6	64,55	85.6.22,63	T.
	(b) Bessel XII. 123.....	0.24,4	21,0				46.30.22,90				65,68	85.36.6,66	T.
	(c) — XII. 163.....	2.57,3	52,9				46.57.56,60				66,74	86.3.41,42	T.
	(b)(c)* R. 12 ^h .17 ^m .59 ^s ...	3.53,0	47,1				47.38.52,05				68,36	86.44.38,49	T.
	(c) Bessel XII. 326.....	3.56,0	49,9				48.13.55,00				69,78	87.19.42,86	T.
	(c) * R. 12 ^h .22 ^m .2 ^s	2.9,0	4,8				47.27.8,00				67,89	86.32.53,97	T.
	* R. 12 ^h .30 ^m .35 ^s	2.51,0	47,2				49.2.50,60				71,82	88.8.40,50	T.
	Bessel XII. 557.....	1.34,6	30,0				50.41.33,10				76,15	89.47.27,33	T.
	— XII. 601.....	0.53,4	49,9				49.15.52,10				72,37	88.21.42,55	T.
	— XII. 645.....	0.28,3	25,0				49.5.26,90				71,93	88.11.16,91	T.
	(a) — XII. 726.....	4.50,0	47,9				49.24.48,85				72,76	88.30.39,69	T.
	— XII. 781.....	0.44,3	42,9				50.50.43,95				76,57	89.56.38,60	T.
	* R. 12 ^h .47 ^m .49 ^s	2.27,0	22,0				51.12.25,75				77,57	90.18.21,40	T.
	(c) Bessel XII. 867.....	3.19,6	13,0				51.8.18,00				77,38	90.14.13,46	T.
	(c) H. C. 24249.....	2.7,1	2,1				49.32.5,70	30,006	46,8	39,4	73,26	88.37.57,04	T.
	H. C. 25158.....	0.62,0	59,8				56.1.1,40	29,998	45,3	36,7	93,42	95.7.12,90	T.
	Bessel XIII. 559.....	3.53,6	46,7				58.8.52,15				101,48	97.15.11,71	T.
	— XIII. 616.....	3.40,0	34,0				57.33.38,85				99,16	96.39.56,09	T.
	— XIII. 669.....	1.4,3	1,0				55.1.3,20				89,94	94.7.11,22	T.
	— XIII. 721.....	3.43,5	39,0				58.23.43,15				102,49	97.30.3,72	T.
	— XIII. 756.....	4.14,4	8,1				57.19.13,45				98,24	96.25.29,77	T.
	(b) B.A.C. 4647.....	2.35,1	30,4				58.12.34,10				101,73	97.18.53,91	T.
	Bessel XIII. 858.....	3.29,1	23,0				55.38.27,80				92,09	94.44.37,97	T.
	(a) — XIII. 886.....	4.42,3	39,0				55.34.40,50				91,87	94.40.50,45	T.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Negative correction for Runs.

(b) Bad definition.

(c) Cloudy.

Month and Day.	NAME OF OBJECT.	Microscope Readings.		Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B										
		' "	" "	" "	" "			Inch.	Int.	Ext.	" "	' " / "	
May 7	(a) Bessel XIII. 928.....	4.59,2	57,0	+5,2			55.49.58,10	29,998	45,3	36,7	92,77	94.56.8,95	T.
	(b) * R. 13 ^h . 56 ^m . 54 ^s	3.23,2	17,0				55.43.21,85				92,38	94.49.32,31	T.
	Bessel XIII. 1043.....	1.23,9	20,0				55.41.22,65				92,26	94.47.32,99	T.
May 11	Zenith Point R.....	2.17,9	15,1	+5,4	9,413		178.42.29,95						T.
May 14	Zenith Point R.....	2.25,7	23,9	+6,5	9,831		178.42.29,88						T.
May 22	(a) Bessel XII. 870.....	4.17,4	17,9	+5,1			52.59.17,30	29,774	54,5	51,4	80,32	92.5.15,63	T.
	(c) * R. 12 ^h . 55 ^m . 31 ^s	3.9,0	6,7				53.3.9,45				80,50	92.9.7,96	B.
	Bessel XII. 1058.....	0.13,0	11,2				56.5.12,20				90,18	95.11.20,39	B.
	— XIII. 27.....	2.11,3	8,7				55.2.11,10				86,66	94.8.15,77	B.
	— XIII. 74.....	1.60,9	58,9				55.6.60,90				86,92	94.13.5,83	B.
	H. C. 24610.....	1.2,3	1,3				55.46.2,30				89,09	94.52.9,40	B.
	Bessel XIII. 169.....	3.29,4	25,2				55.53.29,05				89,51	94.59.36,57	B.
	— XIII. 215.....	1.15,6	13,8				55.46.15,30				89,10	94.52.22,41	B.
	— XIII. 320.....	0.48,2	45,8				56.55.47,40				93,15	96.1.58,56	B.
	l' Virginis.....	0.18,2	15,5				56.35.17,00				91,93	95.41.26,94	B.
	(c) Bessel XIII. 409.....	3.53,8	50,2				56.3.54,00				90,11	95.10.2,12	B.
	H. C. 25106.....	0.27,6	24,3				57.5.26,15				93,73	96.11.37,89	B.
	Bessel XIII. 507.....	1.46,5	43,8				56.46.46,05				92,61	95.52.56,67	B.
	m Virginis.....	0.6,4	5,6				58.50.6,05				100,42	97.56.24,48	B.
	Bessel XIII. 661.....	0.53,2	51,0				57.55.52,55				96,87	97.2.7,43	B.
	— XIV. 248.....	2.37,1	33,0				58.17.36,35	29,799	53,0	49,3	98,78	97.23.53,14	B.
	* R. 14 ^h . 17 ^m . 45 ^s	2.11,4	7,3				59.17.10,45				102,79	98.23.31,25	B.
	* R. 14 ^h . 20 ^m . 34 ^s	3.32,0	25,9				59.8.30,70				102,19	98.14.50,90	B.
	* R. 14 ^h . 22 ^m . 59 ^s	1.27,0	23,8				58.51.26,10				101,03	97.57.45,14	B.
	* R. 14 ^h . 25 ^m . 52 ^s	3.24,3	19,2				59.43.23,50				104,63	98.49.46,14	B.
	Bessel XIV. 516.....	0.36,8	35,0				59.50.36,20				105,15	98.56.59,36	B.
	— XIV. 668.....	1.18,0	14,9				61.36.17,10	29,814	52,3	49,1	113,18	100.42.48,29	B.
	— XIV. 1066.....	0.48,3	46,0				63.10.47,55				121,31	102.17.26,87	B.
	— XIV. 1099.....	2.27,9	24,0				63.12.27,15				121,46	102.19.6,62	B.
	H. C. 27583.....	2.13,9	9,3				63.17.12,70				121,90	102.23.52,61	B.
	Bessel XV. 79.....	0.29,9	27,1				64.20.28,75				127,85	103.27.14,61	B.
	— XV. 148.....	0.26,8	21,4				64.55.24,30				131,34	104.2.13,65	B.
	— XV. 206.....	1.43,0	40,3				63.31.42,50				123,22	102.38.23,73	B.
May 23	Bessel XIII. 124.....	2.34,4	34,4				53.12.35,70	30,144	56,0	55,2	81,34	92.18.35,05	B.
	— XIII. 209.....	3.24,9	23,2				53.38.25,80				82,64	92.44.26,45	B.
	— XIII. 336.....	4.13,9	13,2				56.4.15,65				90,54	95.10.24,20	B.
	— XIII. 395.....	2.55,8	56,0				56.7.57,40				90,75	95.14.6,16	B.
	H. C. 25106.....	0.23,9	23,9				57.5.24,10				94,16	96.11.36,27	B.
	(a) 81 Virginis.....	4.45,9	48,3				57.59.47,00				97,57	97.6.2,58	B.
	Bessel XIII. 563.....	2.40,3	39,9				55.22.41,45				88,19	94.28.47,65	B.
	B.A.C. 4572.....	3.6,8	6,0				55.38.8,00				89,05	94.44.15,16	B.
	* R. 13 ^h . 39 ^m . 2 ^s	0.12,3	14,1				55.35.13,30				88,89	94.41.20,20	B.
	Bessel XIII. 717.....	1.33,0	33,0				55.46.33,80				89,53	94.52.41,34	B.
	— XIII. 1081.....	2.14,9	14,3				59.2.15,75				101,70	98.8.35,46	B.
	κ Virginis.....	2.40,9	40,3				60.27.41,95				107,80	99.34.7,76	B.
May 29	Zenith Point R.....	2.49,2	46,3	+5,9	10,929		178.42.29,99						B.
May 31	B.A.C. 4576.....	0.38,2	37,2	+5,1	9,515		64.20.48,12	29,909	63,6	63,3	124,63	103.27.30,76	B.
	B.A.C. 4593.....	0.39,6	38,2				56.50.49,32				91,05	95.56.58,38	B.
	Bessel XIII. 970.....	1.5,5	3,9				61.26.15,37				109,62	100.32.43,00	B.
	94 Virginis.....	3.42,4	38,4				59.3.52,42				99,38	98.10.9,81	B.
	Bessel XIII. 1089.....	0.46,2	45,0				58.10.56,12				95,94	97.17.10,07	B.
	— XIV. 83.....	0.46,9	44,6				59.10.56,27				99,86	98.17.14,14	T.
	— XIV. 145.....	4.23,6	19,0				59.4.33,62				99,43	98.10.51,06	T.

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Negative correction for Runs.

(b) Bad definition.

(c) Very faint.

Month and Day.	NAME OF OBJECT.	Microscope Readings.		Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refract.	Apparent N.P.D. from the Observation.	Observer.						
		A	B						Int.	Ext.									
		" "	" "											" "					
May 31	Bessel xiv. 231	0.37,2	35,0	+5,1	9,515		61.35.46,52	29,909	63,6	63,3	110,37	100.42.14,90	B.						
	B.A.C. 4772	2.25,3	22,4				61.52.25,05				111,68	100.58.54,74	B.						
	(a) Bessel xiv. 333.....	4.53,8	54,0				61.49.53,85				111,48	100.56.23,34	B.						
	— xiv. 418.....	0.60,5	59,3				63.40.60,40				120,93	102.47.39,34	B.						
	— xiv. 469.....	2.7,9	5,0				63.42.7,50				121,03	102.48.46,54	B.						
	(b) B.A.C. 4828	3.7,1	4,4				62.33.7,35				115,02	101.39.40,38	B.						
	(c) Bessel xiv. 583	1.23,8	20,6				62.36.22,90				115,29	101.42.56,20	B.						
	B.A.C. 4848	3.39,3	34,9				62.28.38,95				114,64	101.35.11,60	B.						
	Bessel xiv. 680.....	3.27,5	21,1				63.13.26,05				118,47	102.20.2,53	T.						
June 1	Bessel xiv. 990	3.38,3	35,1				65.18.38,55	30,081	61,6	60,7	131,79	104.25.28,35	B.						
	H. C. 27385	2.44,3	40,7				66.52.43,85				142,20	105.59.44,06	B.						
	1 ^a Libræ.....	3.8,9	3,9				66.33.8,00				139,96	105.40.5,97	B.						
	2 ^a Libræ	2.7,3	4,2				69.57.6,80				167,26	109.4.32,07	B.						
	(d) * R. 15 ^h . 8 ^m . 7 ^s	3.46,9	42,5				70.18.46,60				170,72	109.26.15,33	B.						
	(d) 28 Libræ.....	4.11,6	6,6				68.29.11,20				154,44	107.36.23,65	B.						
	H. C. 28117	0.50,7	49,5				70.20.50,50				171,05	109.28.19,56	B.						
June 2	H. C. 26546	1.15,0	11,8				+3,9						69.26.13,85	30,138	59,5	54,1	165,06	108.33.36,18	T.
	— 26719	4.8,9	3,1										70.9.7,60				171,78	109.16.36,65	T.
	— 26863	2.61,3	58,9	69.13.1,25	163,08	108.20.21,60		T.											
	— 27219	3.6,9	4,0	67.38.6,65	150,02	105.45.13,94		T.											
	* R. 14 ^h . 54 ^m . 12 ^s	1.35,6	32,6	69.36.34,70	166,63	108.43.58,60		T.											
	(a) H. C. 27451	4.49,0	48,0	69.39.48,40	167,13	108.47.12,80		T.											
June 5	Zenith Point R.....	2.22,0	20,0		9,577		178.42.30,73						T.						
June 8	H. C. 26504	0.29,0	25,5	+5,0			68.5.27,50	29,949	55,6	46,4	155,08	107.12.39,69	T.						
	Bessel xiv. 512	0.13,6	11,1				64.15.12,45				128,62	103.21.58,18	T.						
	— xiv. 557	3.29,3	22,5				59.58.27,60				106,88	99.4.51,59	T.						
	— xiv. 671	2.13,6	10,0				59.57.12,90				106,79	99.3.36,80	B.						
	— xiv. 725	3.22,4	17,5				61.48.21,60				115,41	100.54.54,12	B.						
	(a) — xiv. 852	4.54,1	53,5				62.29.53,75				118,92	101.36.29,78	B.						
	H. C. 27159	1.31,1	27,2				69.11.29,90				164,44	108.18.51,45	B.						
	18 Libræ.....	0.31,5	29,2				61.25.30,60				113,55	100.32.1,26	B.						
	Bessel xiv. 1008.....	1.31,6	28,1				62.36.30,60				119,49	101.43.7,20	B.						
	H. C. 27418	2.23,2	20,0				65.17.22,80				134,97	104.24.14,88	B.						
	— 27519	0.55,2	53,5				73.20.54,80				210,91	112.29.2,82	B.						
	* R. 15 ^h . 4 ^m . 39 ^s	3.17,9	13,9				70.33.17,55				177,48	109.40.52,14	T.						
June 9	Bessel xiv. 491	2.50,1	47,3										62.57.50,10	29,780	53,0	44,5	121,17	102.4.28,38	T.
	— xiv. 557	3.28,7	22,9	59.58.27,55	106,70	99.4.51,36		T.											
	(a)(c) — xiv. 607	4.58,6	57,1	64.9.57,80	127,88	103.16.42,79		T.											
	(a)(c) — xiv. 725	3.23,0	21,4	61.48.21,40	115,22	100.54.53,73		T.											
	(a) — xiv. 852	4.55,1	54,0	62.29.54,50	118,72	101.36.30,33		T.											
	(a) — xiv. 931	4.60,1	58,0	62.54.59,05	120,91	102.1.37,07		T.											
	(a) H. C. 27313	4.49,4	47,1	69.4.48,15	163,17	108.12.8,43		T.											
	(a)(c) — 27488	4.19,1	17,2	70.59.17,80	181,72	110.6.56,41		T.											
	Bessel xv. 52.....	2.29,6	24,9	64.42.28,50	29,780	53,0		44,5	131,12	103.49.16,73			T.						
	(a) * R. 15 ^h . 14 ^m . 25 ^s	4.59,4	57,3	60.59.58,35					111,34	100.6.26,80			T.						
	H. C. 28136	0.26,0	23,0	66.50.24,70					145,26	105.57.27,07			T.						
	3 ^a Libræ.....	3.9,9	5,0	66.58.9,00					146,20	106.5.12,31			T.						
	Bessel xv. 472.....	4.26,0	20,3	65.14.25,35					134,43	104.21.16,89			T.						
	(f) * R. 15 ^h . 29 ^m . 16 ^s	0.47,6	43,0	66.5.45,34					140,05	105.12.42,50			T.						
	Bessel xv. 637	2.9,0	4,7	65.57.7,90					139,08	105.4.4,09			T.						
	* R. 15 ^h . 37 ^m . 52 ^s	3.60,6	55,0	66.33.59,80					143,31	105.41.0,22			T.						
	H. C. 28780	3.56,0	51,0	68.18.55,45					156,64	107.26.9,20			T.						
	* R. 15 ^h . 44 ^m . 39 ^s	3.28,7	24,6	68.23.28,35					157,27	107.30.42,73			T.						
	* R. 15 ^h . 47 ^m . 11 ^s	2.43,0	39,6	68.27.42,65			157,86		107.34.57,62	T.									

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16".6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Negative correction for Runs. (b) The N.P.D. by this observation exceeded by 10' that of H.A.C. and of the observations on June 13, and has been altered accordingly. (c) The instrument having been accidentally unclamped before reading off Microscope II, the reading for this Microscope is supplied conjecturally from the following observation and the two preceding. (d) Cloudy. (e) Extremely faint. (f) Bisection doubtful.

Month and Day.	NAME OF OBJECT.	Microscope Readings.		Correction for Runs for S'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.			Observer.					
		A	B						Int.	Ext.		"	"	"						
		"	"													"	"	"	"	"
June 9	* R. 15 ^h . 50 ^m . 40 ^s ...	0. 3,2	1,3	+5,0			66. 40. 2,25	29,780	53,0	44,5	144,02	105. 47. 3,38	T.							
	(a) H. C. 29130.....	4. 3,0	0,6				69. 54. 1,30	29,757	51,0	42,7	171,23	109. 1. 29,64								
	(a) * R. 16 ^h . 0 ^m . 7 ^s	4. 10,1	8,6				66. 34. 8,95				143,76	105. 41. 9,82								
	* R. 16 ^h . 4 ^m . 45 ^s	0. 14,6	12,0				68. 35. 13,40				159,39	107. 42. 29,90								
	(b) * R. 16 ^h . 9 ^m . 10 ^s	1. 44,1	41,3				68. 46. 43,55				161,03	107. 54. 1,69								
	H. C. 29778.....	2. 20,0	15,1				67. 32. 18,70				150,92	106. 39. 26,73								
June 11	Zenith Point R.....	2. 26,1	20,3	+4,7	9,683		178. 42. 30,89	29,845	52,0	46,0	106,03	98. 57. 0,39	T.							
	Bessel xiv. 816.....	0. 37,9	36,0				59. 50. 37,25								144,97	105. 56. 10,13				
	H. C. 26691.....	4. 8,4	3,6	66. 49. 8,05										111,64	100. 11. 37,30					
	Bessel xiv. 641.....	0. 9,0	8,0	61. 5. 8,55										121,74	102. 12. 6,10					
	— xiv. 739.....	0. 28,4	25,6	63. 5. 27,25										136,68	104. 43. 25,14					
	— xiv. 891.....	1. 32,8	28,4	65. 36. 31,35										186,53	110. 34. 23,14					
	(c) H. C. 27270.....	1. 40,9	36,4	71. 26. 39,50										122,06	102. 15. 37,12					
	Bessel xiv. 1031.....	3. 58,0	54,0	63. 8. 57,95										132,27	104. 1. 47,18					
	(a)(d) — xiv. 1109.....	4. 57,9	57,8	64. 54. 57,80										132,84	104. 7. 18,10					
	— xv. 61.....	0. 28,9	26,9	65. 0. 28,15										132,88	104. 7. 40,44					
	— xv. 122.....	0. 50,3	49,8	65. 0. 50,45										133,27	104. 11. 26,08					
	(a) — xv. 215.....	4. 36,8	35,0	65. 4. 35,70			29,850				51,7			137,91	104. 54. 30,72					
	— xv. 314.....	2. 36,8	32,0	65. 47. 35,70										152,36	106. 54. 55,42					
	ζ ² Libræ.....	2. 46,4	42,8	67. 47. 45,95										147,93	106. 20. 11,29					
	ζ ⁴ Libræ.....	3. 6,4	3,0	67. 13. 6,25										123,75	102. 33. 59,41					
	H. C. 28603.....	2. 19,8	15,0	63. 27. 18,55																
	June 13	B.A.C. 4828.....	2. 61,1	58,2										62. 32. 61,15	30,130	51,4	47,9	119,54	101. 39. 37,80	T.
		B.A.C. 4848.....	3. 34,7	30,8										62. 28. 34,50				119,15	101. 35. 10,76	
5 Libræ.....		2. 17,5	14,2	65. 42. 17,00					138,07	104. 49. 12,18										
Bessel xiv. 830.....		1. 6,7	4,3	63. 46. 6,04					126,18	102. 52. 49,33										
(e) H. C. 27263.....		0. 38,5	37,2	69. 40. 38,15					169,37	108. 48. 4,63										
(a) — 27313.....		4. 47,9	47,9	69. 4. 47,80					163,91	108. 12. 8,81										
— 27385.....		2. 36,9	33,0	66. 52. 36,25					146,32	105. 59. 39,68										
ν ¹ Libræ.....		2. 59,0	57,4	66. 32. 59,70					143,85	105. 40. 0,66										
Bessel xv. 4.....		0. 37,5	35,0	66. 0. 36,55					140,11	105. 7. 33,77										
(a) 28 Libræ.....		4. 4,9	4,3	68. 29. 4,15					158,77	107. 36. 20,03										
(a) H. C. 28012.....		4. 11,0	10,0	66. 54. 10,10					146,39	106. 1. 13,60										
(a)(f) * R. 15 ^h . 17 ^m . 42 ^s ..		4. 25,3	24,2	67. 24. 24,45					150,15	106. 31. 31,71										
ζ ² Libræ.....		2. 45,1	42,0	67. 47. 44,90					153,17	106. 54. 54,95										
(g) * R. 15 ^h . 24 ^m . 12 ^s ...		2. 30,0	26,4	68. 17. 29,45					157,17	107. 24. 43,73										
H. C. 28389.....		3. 19,1	14,9	67. 23. 18,65					150,01	106. 30. 25,77										
(e) * R. 15 ^h . 30 ^m . 28 ^s ...		2. 2,3	59,6	67. 27. 1,95					150,48	106. 34. 9,54										
(a)(g)(h) * R. 15 ^h . 35 ^m . 30 ^s		4. 32,1	32,0	67. 49. 31,62					153,40	106. 56. 42,13										
H. C. 28717.....		0. 52,0	52,0	67. 30. 52,45					150,97	106. 38. 0,53										
— 28780.....		3. 54,1	48,9	68. 18. 53,45					157,36	107. 26. 7,92										
* R. 15 ^h . 43 ^m . 36 ^s ...		1. 21,1	19,0	68. 51. 20,70					161,94	107. 58. 39,75										
(g)(e) * R. 15 ^h . 46 ^m . 51 ^s ...		1. 6,8	5,0	67. 41. 6,45					152,30	106. 48. 15,86										
H. C. 29052.....		3. 49,4	46,4	67. 43. 49,80					152,65	106. 50. 59,56										
(i) — 29310.....		4. 55,0	49,0	68. 49. 54,30	30,138	48,1		44,7	162,86	107. 57. 14,27										
— 29395.....		3. 43,0	39,0	68. 48. 42,85					162,69	107. 56. 2,65										
* R. 16 ^h . 3 ^m . 19 ^s ...		2. 43,4	40,8	68. 42. 43,45					161,82	107. 50. 2,38										
(e)(g) * R. 16 ^h . 8 ^m . 4 ^s ...		3. 19,8	15,2	67. 58. 19,15					155,64	107. 5. 31,90										
* R. 16 ^h . 12 ^m . 21 ^s ...		3. 25,3	21,0	68. 13. 24,85					157,69	107. 20. 39,61										
June 14	* R. 15 ^h . 42 ^m . 28 ^s	0. 8,1	7,0				67. 25. 7,60	30,068	48,8	45,0	150,84	106. 32. 15,55	T.							
	47 Libræ.....	3. 25,5	22,0				69. 48. 25,45				171,28	108. 55. 53,84								
	(k) * R. 15 ^h . 49 ^m . 21 ^s ...	1. 30,5	28,0				67. 31. 30,00				151,65	106. 38. 38,76								

ONE REVOLUTION of the MICROMETER = 20",862. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Negative correction for Runs. (b) Extremely faint. (c) Too faint for satisfactory bisection. (d) Bisection doubtful. (e) Very faint.
 (f) The middle star of three. (g) The R.A. may be in error a few seconds. (h) Eye-piece misty. (i) Correction for Run of $\Lambda = 0''$, being negative;
 for that of $B = +4''$,6. (k) Extremely faint from cloud.

CATALOGUE
OF THE
CONCLUDED MEAN RIGHT ASCENSIONS,
AND
CONCLUDED MEAN NORTH POLAR DISTANCES,
JANUARY 1, 1849,
OF THE ZODIACAL STARS.

Reference Number.	Name of Star.	Observed Magnitude.	Day of Observation of R.A.	Correction to Mean R.A. Jan. 1, 1849.	Concluded Mean R.A., or, Approximate R.A., Jan. 1, 1849.	Annual Variation in R.A.	Day of Observation of N.P.D.	Correction to Mean N.P.D. Jan. 1, 1849.	Concluded Mean N.P.D., or, Approximate N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.
				s.	h. m. s.	s.		"	° ' "	"
1	*.....	9	April 3	-0,92	8.54.39,36	+3,388	April 3	-10,06	71.49.54,14	+13,843
2	H. C. 17922.....	9	3	0,93	8.57.15,88	3,381	3	10,11	72.0.38,85	14,011
3	— 18020.....	7.8	3	0,95	9.0.33,99	3,378	3	10,05	71.55.16,37	14,216
4	— 18141.....	8.9	3	0,96	9.4.14,45	3,357	3	10,33	72.51.29,07	14,440
5	— 18243.....	9	3	0,98	9.7.21,39	3,370	3	10,00	71.52.49,56	14,629
6	83 Cancri.....	6.7	3	0,99	9.10.32,17	3,369	3	9,92	71.39.24,53	14,818
7	*.....	8	7	1,07	9.40.40,81	3,268	7	10,58	75.31.26,00	16,463
8	23 Leonis.....	6	7	1,08	9.42.51,99	3,255	7	10,75	76.13.47,43	16,570
9	*.....	10.11	7	1,08	9.45.33,00	3,265	7	10,43	75.15.51,18	16,702
10	Bessel ix. 1046.....	8 $\frac{1}{2}$	5	1,12	9.48.25,82	3,259	5	10,58	75.26.54,42	16,840
11	—	10	7	1,10	9.48.26,87		7	10,46	75.26.55,89	
12	H. C. 19536.....	8.9	7	1,11	9.51.42,36	3,269	7	10,10	74.24.4,42	16,994
13	Bessel ix. 1117.....		5	1,14	9.51.48,44	3,260	5	10,43	75.0.55,67	16,998
14	*.....	9	7	1,12	9.54.33,15	3,264	7	10,10	74.27.41,70	17,125
15	H. C. 19628.....		3	1,16	9.55.26,24	3,308	3	9,46	71.2.58,92	17,165
16	*.....	8	20	0,96	9.56.51,54	3,265	20	9,02	74.8.3,77	17,229
17	34 Leonis.....	5	7	1,16	10.3.31,23	3,234	7	10,39	75.54.2,85	17,520
18	*.....	9	20	0,99	10.4.53,50	3,251	20	9,00	74.22.49,01	17,578
19	Bessel x. 128.....	8.9	20	1,01	10.7.44,02	3,230	20	9,38	75.46.57,83	17,697
20	37 Leonis.....	6	7	1,17	10.8.34,75	3,232	7	10,21	75.31.12,06	17,731
21	Bessel x. 170.....	8	20	1,03	10.10.19,52	3,232	20	9,18	75.18.44,35	17,803
22	*.....	8.9	5	1,20	10.11.8,96	3,239	5	10,09	74.34.32,58	17,835
23	H. C. 20024.....	8	7	1,18	10.11.34,70	3,239	7	9,94	74.34.1,83	17,853
24	42 Leonis.....	6.7	7	1,19	10.13.43,03	3,239	7	9,83	74.15.51,62	17,937
25	—	6.7	20	1,03	10.13.43,14		20	8,84	74.15.53,30	
26	*.....	8.9	7	1,21	10.16.42,66	3,220	7	10,16	75.38.45,56	18,052
27	—	9.10	20	1,05	10.16.41,98		20	9,21	75.38.45,11	
28	Bessel x. 317.....	8	5	1,23	10.18.26,64	3,224	5	10,10	74.59.2,20	18,118
29	— x. 325.....	7.8	7	1,21	10.18.41,33	3,217	7	10,11	75.36.20,40	18,127
30	*.....	8	20	1,06	10.20.20,98	3,238	20	8,48	73.28.31,54	18,189
31	Bessel x. 364.....	7.8	7	1,22	10.20.39,49	3,211	7	10,17	75.56.28,94	18,200
32	— x. 368.....	8	23	1,06	10.20.57,82	3,173	23	11,81	79.39.48,61	18,211
33	i Leonis.....	6.7	5	1,25	10.24.7,78	3,215	5	10,05	75.5.18,67	18,326
34	—	6	20	1,08	10.24.8,81		20	8,91	75.5.20,58	
35	*.....	8	7	1,23	10.24.44,82	3,219	7	9,78	74.36.13,74	18,348
36	ρ Leonis.....	4.5	11	1,21	10.24.51,53	3,166	11	10,88	79.55.4,03	18,351
37	—	6	26	1,04	10.24.51,46		26	9,96	79.55.5,02	
38	49 Leonis.....	6.7	23	1,09	10.27.7,39	3,158	23	10,30	80.34.15,96	18,430
39	—	7.8	26	1,05	10.27.6,83		26	10,11	80.34.15,67	
40	Bessel x. 409.....	8	20	1,12	10.28.7,77	3,185	20	9,59	77.36.19,63	18,465
41	— x. 525.....	8.9	11	1,23	10.29.16,20	3,163	11	10,77	79.50.34,55	18,504
42	—	8.9	26	1,06	10.29.15,95		26	9,84	79.50.35,40	
43	H. C. 20571.....	8 $\frac{1}{2}$	20	1,12	10.30.47,86	3,193	20	9,19	76.27.9,51	18,555
44	*.....	7.8	23	1,11	10.31.1,49	3,143	23	10,61	81.51.50,83	18,562
45	Bessel x. 570.....	8	26	1,07	10.31.47,65	3,156	26	9,95	80.22.21,45	18,588
46	— x. 603.....	9	20	1,13	10.33.41,69	3,190	20	9,11	76.19.40,23	18,650
47	*.....	9	11	1,25	10.33.57,40	3,154	11	10,82	80.20.31,87	18,663
48	—	9.10	26	1,08	10.33.57,14		26	9,89	80.20.36,71	
49	Bessel x. 657.....	9	26	1,09	10.36.29,58	3,152	26	9,82	80.18.26,06	18,738
50	— x. 661.....	9	23	1,15	10.36.56,56	3,127	23	10,84	83.10.18,39	18,752
51	*.....	9	14	1,24	10.38.6,86	3,143	14	10,80	81.13.31,37	18,788
52	H. C. 20748.....	7.8	20	1,15	10.38.20,60	3,183	20	9,07	76.27.25,89	18,795
53	*.....	9	11	1,26	10.39.5,24	3,150	11	10,70	80.14.39,15	18,818
54	Bessel x. 703.....	8	26	1,12	10.39.28,03	3,128	26	10,52	82.51.30,56	18,830
55	— x. 730.....	8.9	14	1,26	10.40.48,61	3,132	14	10,98	82.13.48,41	18,870
56	—	8	23	1,16	10.40.48,68		23	10,48	82.13.47,39	
57	H. C. 20879.....		30	1,11	10.43.12,81	3,115	30	10,59	84.10.10,84	18,940
58	Bessel x. 783.....	8.9	14	1,27	10.43.19,60	3,129	14	10,98	82.26.13,13	18,943
59	— x. 782.....	7	11	1,28	10.43.19,94	3,148	11	10,54	79.58.2,56	18,943
60	—	8	26	1,12	10.43.19,78		26	9,55	79.58.5,07	
61	Bessel x. 803.....	8.9	20	-1,18	10.44.3,29	+3,164	20	-9,36	77.50.29,43	+18,964

No. 7. The R.A. is about 1^s.75 greater than that of H. C. 19229, and the N.P.D. about 40'' greater than the N.P.D. of the same star.

No. 21. The R.A. by the observation has been decreased 1^m, Bessel's being supposed to be correct.

No. 31. The observed N.P.D. is 1' less than Bessel's, but agrees with that of H. C. 20304.

No. 58. The R.A. is about 1^s.6 less than Bessel's, which is 1^s greater than that of H. C. 20883.

Reference Number.	Name of Star.	Observed Magnitude.	Day of Observation of R.A.	Correction to Mean R.A. Jan. 1, 1849.	Concluded Mean R.A., or, Approximate R.A., Jan. 1, 1849.	Annual Variation in R.A.	Day of Observation of N.P.D.	Correction to Mean N.P.D. Jan. 1, 1849.	Concluded Mean N.P.D., or, Approximate N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.
				s.	h. m. s.	s.		"	° ' "	"
62	Bessel x. 810.....	7.8	April 23	-1.17	10.44.10.42	+3.130	April 23	-10.38	82.9.7.77	+18.967
63	— x. 854.....	10	14	1.27	10.46.27.22	3.133	14	10.69	81.35.13.77	19.031
64	— x. 860.....	8	26	1.16	10.46.55.55	3.119	26	10.48	83.20.58.04	19.045
65	— x. 873.....	9	23	1.19	10.47.47.32	3.127	23	10.31	82.14.4.92	19.067
66	*.....	9.10	11	1.30	10.47.55.73	3.139	11	10.60	80.37.26.60	19.072
67	Bessel x. 875.....	9	20	1.21	10.47.56.34	3.150	20	9.61	79.4.18.12	19.072
68	— x. 883.....	7	14	1.28	10.48.51.45	3.129	14	10.70	81.48.13.05	19.096
69	— x. 907.....	9.10	26	1.16	10.49.45.24	3.129	26	9.92	81.42.6.92	19.120
70	*.....	9	21	1.21	10.49.55.41	3.140	21	9.81	80.10.20.40	19.125
71	Bessel x. 914.....	7.8	30	1.11	10.50.18.43	3.145	30	8.97	79.29.32.66	19.135
72	— x. 928.....	7.8	23	1.21	10.51.19.06	3.124	23	10.24	82.15.36.14	19.161
73	— x. 928.....	8.9	28	1.15	10.51.19.38		28	9.92	82.15.34.89	
74	— x. 931.....	9.10	20	1.21	10.51.30.82	3.159	20	9.06	77.17.43.56	19.166
75	— x. 935.....	8	14	1.29	10.51.41.75	3.126	14	10.66	81.57.47.43	19.171
76	*.....	10	11	1.32	10.52.34.41	3.134	11	10.51	80.39.5.50	19.193
77	H. C. 21127.....	8½	26	1.19	10.52.50.30	3.113	26	10.43	83.40.44.30	19.200
78	— 21170.....	8.9	21	1.23	10.54.23.16	3.135	21	9.75	80.19.9.80	19.239
79	— 21170.....	8	30	1.13	10.54.23.46		30	9.13	80.19.10.73	
80	Bessel x. 987.....	7.8	20	1.24	10.54.40.86	3.137	20	9.74	80.0.55.22	19.246
81	— x. 1001.....	9½	26	1.18	10.55.23.33	3.130	26	9.58	81.0.3.26	19.263
82	— x. 1001.....	9½	28	1.16	10.55.23.19		28	9.43	81.0.5.43	
83	*.....	8.9	23	1.22	10.55.49.38	3.121	23	10.09	82.10.15.55	19.274
84	B.A.C. 3780.....	7.8	14	1.31	10.55.50.23	3.125	14	10.49	81.36.18.46	19.274
85	Bessel x. 1021.....	8	11	1.33	10.56.24.85	3.128	11	10.51	81.1.14.89	19.288
86	χ Leonis.....	7	21	1.25	10.57.13.60	3.122	21	10.10	81.50.56.06	19.308
87	Bessel x. 1041.....	8.9	20	1.23	10.57.46.39	3.153	20	8.87	77.5.44.80	19.320
88	— x. 1051.....	7	May 2	1.18	10.58.16.92	3.083	May 2	11.20	77.58.28.70	19.332
89	— x. 1053.....	8	April 14	1.32	10.58.19.42	3.120	April 14	10.55	82.2.52.90	19.333
90	*.....	9	26	1.19	10.58.27.12	3.134	26	9.17	79.47.49.48	19.336
91	Bessel x. 1068.....	7.8	30	1.17	10.58.52.61	3.109	30	10.04	83.45.19.57	19.346
92	*.....	9	11	1.34	10.59.58.10	3.127	11	10.37	80.48.15.09	19.371
93	Bessel x. 1096.....	8.9	21	1.26	11.0.23.99	3.115	21	10.20	82.36.33.01	19.381
94	— x. 1100.....	8.9	14	1.32	11.0.36.88	3.121	14	10.35	81.33.7.68	19.386
95	— x. 1100.....	8	28	1.19	11.0.36.92		28	9.47	81.33.11.49	
96	H. C. 21330.....	7.8	May 2	1.18	11.0.40.65	3.095	May 2	10.54	85.57.39.10	19.387
97	*.....	10	April 20	1.26	11.0.56.44	3.128	April 20	9.69	80.22.50.49	19.392
98	Bessel x. 1110.....	9	26	1.21	11.1.14.56	3.123	26	9.50	81.15.13.44	19.400
99	*.....	7.8	30	1.20	11.2.7.57	3.097	30	10.46	85.23.18.08	19.419
100	Bessel xi. 23.....	7.8	28	1.19	11.2.40.32	3.121	28	9.35	81.17.26.23	19.431
101	*.....	10	14	1.35	11.9.19.32	3.115	14	10.13	81.25.51.75	19.567
102	Bessel xi. 160.....	8	30	1.23	11.9.48.40	3.097	30	10.04	84.51.14.64	19.576
103	— xi. 168.....	9	28	1.24	11.10.16.81	3.105	28	9.68	83.6.32.11	19.585
104	— xi. 171.....	9	May 4	1.15	11.10.35.28	3.126	May 4	8.02	79.1.5.66	19.591
105	— xi. 188.....	7.8	2	1.25	11.11.31.67	3.078	2	10.93	88.27.5.93	19.608
106	— xi. 197.....	9	April 14	1.37	11.11.49.46	3.108	April 14	10.28	82.18.18.51	19.613
107	*.....	9	28	1.26	11.12.34.44	3.097	28	10.00	84.33.55.38	19.627
108	*.....	9	11	1.38	11.13.12.47	3.118	11	9.95	80.4.53.02	19.638
109	Bessel xi. 233.....	7.8	30	1.25	11.13.47.92	3.094	30	9.97	84.57.54.07	19.649
110	— xi. 235.....	7½	May 4	1.18	11.14.1.73	3.118	May 4	8.23	80.0.14.74	19.653
111	*.....	8	2	1.27	11.14.13.09	3.072	2	11.16	89.36.8.02	19.656
112	—	7	14	1.38	11.15.26.97	3.104	14	10.24	82.35.9.03	19.677
113	B.A.C. 3871.....	8	20	1.33	11.15.27.03		20	9.90	82.35.10.36	
114	— 3873.....	7	28	1.26	11.15.27.04		28	9.38	82.35.9.21	
115	— 3873.....	7.8	3	1.27	11.15.34.43	3.075	3	10.92	89.2.24.07	19.689
116	H. C. 21696.....	8	April 30	1.27	11.16.6.67	3.090	April 30	10.06	85.32.55.59	19.688
117	79 Leonis.....	6.7	May 2	1.27	11.16.17.20	3.081	May 2	10.53	87.45.49.43	19.691
118	*.....	8.9	April 11	1.39	11.16.40.38	3.116	April 11	9.78	79.40.47.32	19.697
119	*.....	10	May 3	1.28	11.17.18.82	3.075	May 3	10.88	89.3.20.60	19.708
120	Bessel xi. 295.....	8	4	1.20	11.17.35.59	3.109	4	8.50	81.12.56.92	19.713
121	— xi. 307.....	8½	April 14	1.45	11.17.54.64	3.099	April 14	10.35	83.25.17.34	19.718
122	80 Leonis.....	6.7	30	-1.27	11.18.4.87	+3.091	30	-9.95	85.18.32.76	+19.721

N°. 68. The R.A. is about 10° greater than Bessel's and that of H. C. 21032, and is most probably erroneous to that amount.

N°. 98. The N.P.D. is 1' greater than Bessel's.

N°. 104. The R.A. agrees with Bessel's: the precession in Weiss's Catalogue should be 3".128.

Reference Number.	Name of Star.	Observed Magnitude.	Day of Observation of R.A.	Correction to Mean R.A. Jan. 1, 1849.	Concluded Mean R.A., or, Approximate R.A., Jan. 1, 1849.	Annual Variation in R.A.	Day of Observation of N.P.D.	Correction to Mean N.P.D. Jan. 1, 1849.	Concluded Mean N.P.D., or, Approximate N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.
				s.	h. m. s.	s.		"	° ' "	"
123	*.....	8	April 28	-1,27	11. 18. 25,34	+ 3,103	April 28	-9,25	82. 23. 9,28	+ 19,726
124	B.A.C. 3892.....	8	20	1,33	11. 18. 28,91	3,111	20	9,30	80. 30. 36,35	19,727
125	83 Leonis.....	7.8	May 2	1,27	11. 19. 6,92	3,086	May 2	10,03	86. 9. 51,98	19,737
126	Bessel xi. 342.....	8	3	1,28	11. 19. 49,54	3,078	3	10,54	88. 12. 31,75	19,748
127	— xi. 344.....	8	April 11	1,40	11. 19. 57,61	3,113	April 11	9,72	79. 41. 29,30	19,750
128	— xi. 345.....	8½	May 4	1,21	11. 19. 59,39	3,106	May 4	8,46	81. 17. 19,50	19,750
129	— xi. 361.....	10	April 14	1,39	11. 20. 33,27	3,102	April 14	10,01	82. 7. 39,16	19,759
130	*.....	9	30	1,29	11. 20. 41,66	3,088	30	9,97	85. 41. 55,35	19,761
131	Bessel xi. 374.....	8¼	28	1,23	11. 21. 25,89	3,101	28	9,16	82. 21. 56,93	19,772
132	B.A.C. 3911.....	8	20	1,35	11. 21. 52,02	3,103	20	9,48	81. 34. 5,48	19,778
133	*.....	7.8	May 4	1,22	11. 21. 52,42		May 4	8,48	81. 34. 6,13	
134	*.....	8	April 14	1,39	11. 23. 39,36	3,106	April 14	9,57	80. 24. 59,99	19,803
135	Bessel xi. 412.....	8	May 4	1,23	11. 23. 53,01	3,103	May 4	8,35	81. 18. 13,74	19,807
136	*.....	8.9	April 11	1,41	11. 24. 28,79	3,106	April 11	9,73	80. 14. 21,76	19,815
137	Bessel xi. 429.....	8	May 3	1,29	11. 24. 52,90	3,078	May 3	10,27	87. 49. 30,39	19,820
138	— xi. 439.....	8.9	April 20	1,36	11. 25. 20,32	3,100	April 20	9,44	81. 45. 19,61	19,826
139	— xi. 446.....	8.9	May 4	1,24	11. 25. 44,50	3,101	May 4	8,27	81. 11. 13,30	19,831
140	— xi. 449.....	8	April 14	1,40	11. 25. 57,68	3,103	April 14	9,56	80. 37. 11,95	19,834
141	*.....	9	May 3	1,29	11. 27. 23,90	3,083	May 3	9,76	86. 19. 0,65	19,852
142	Bessel xi. 479.....	9	4	1,25	11. 27. 33,83	3,100	4	8,24	81. 16. 45,35	19,855
143	— xi. 495.....	9.10	April 20	1,38	11. 28. 17,66	3,097	April 20	9,39	81. 49. 0,64	19,863
144	— xi. 501.....	9	11	1,43	11. 28. 47,39	3,101	11	9,70	80. 35. 52,21	19,869
145	H. C. 22038.....	8.9	May 3	1,34	11. 29. 46,45	3,071	May 3	10,62	89. 42. 39,06	19,881
146	— 22044.....	8.9	4	1,27	11. 29. 58,01	3,094	4	8,48	82. 18. 57,39	19,883
147	Bessel xi. 543.....	9	April 20	1,38	11. 30. 59,86	3,095	April 20	9,30	81. 46. 9,33	19,894
148	— xi. 562.....	8.9	May 3	1,36	11. 32. 1,75	3,069	May 3	10,79	90. 36. 14,40	19,906
149	— xi. 566.....	7.8	April 14	1,44	11. 32. 20,56	3,090	April 14	9,93	83. 16. 56,92	19,909
150	— xi. 566.....	8¼	May 4	1,28	11. 32. 20,82		May 4	8,69	83. 16. 56,68	
151	— xi. 572.....	8	April 11	1,43	11. 32. 42,60	3,100	April 11	9,43	79. 40. 44,12	19,913
152	— xi. 605.....	9	May 3	1,34	11. 34. 24,09	3,075	May 3	10,30	88. 9. 5,44	19,930
153	*.....	8¼	4	1,29	11. 34. 42,13	3,087	4	8,73	83. 39. 26,53	19,933
154	*.....	8.9	April 14	1,43	11. 34. 56,20	3,094	April 14	9,40	80. 50. 58,41	19,935
155	Bessel xi. 617.....	8.9	20	1,41	11. 35. 7,13	3,089	20	9,42	82. 46. 41,96	19,937
156	H. C. 22180.....	7	3	1,44	11. 35. 59,70	3,114	3	8,85	72. 50. 23,59	19,945
157	*.....	8	11	1,45	11. 37. 7,00	3,094	11	9,41	80. 8. 40,99	19,955
158	Bessel xi. 656.....	8.9	May 3	1,35	11. 37. 21,22	3,076	May 3	9,78	87. 35. 2,24	19,957
159	ξ Virginis.....	6	April 14	1,44	11. 37. 30,20	3,092	April 14	9,35	80. 54. 6,27	19,958
160	Bessel xi. 665.....	8	May 4	1,34	11. 37. 59,37	3,079	May 4	9,35	86. 20. 8,28	19,963
161	ν Virginis.....	5	April 20	1,42	11. 38. 5,74	3,087	April 20	9,30	82. 37. 28,24	19,964
162	*.....	8.9	May 3	1,36	11. 39. 24,63	3,076	May 3	9,72	87. 38. 59,06	19,974
163	B.A.C. 3996.....	7	April 20	1,44	11. 41. 22,65	3,082	April 20	9,51	83. 58. 16,89	19,989
164	H. C. 22330.....	8	May 3	1,37	11. 42. 2,21	3,076	May 3	9,44	86. 55. 41,18	19,993
165	*.....	9	3	1,37	11. 44. 43,79	3,077	3	9,07	85. 51. 24,41	20,011
166	*.....	8	April 3	1,46	11. 45. 7,04	3,093	April 3	9,09	75. 24. 50,62	20,012
167	*.....	10	20	1,46	11. 45. 40,18	3,077	20	9,70	85. 29. 39,10	20,016
168	H. C. 22440.....	8.9	May 4	1,35	11. 47. 5,10	3,079	May 4	8,26	83. 21. 37,43	20,023
169	Bessel xi. 816.....	7.8	3	1,38	11. 47. 23,41	3,076	3	9,02	85. 56. 27,77	20,024
170	*.....	8	April 3	1,46	11. 49. 53,04	3,089	April 3	8,67	72. 43. 41,61	20,035
171	Bessel xi. 861.....	8¼	May 4	1,36	11. 50. 1,57	3,078	May 4	8,04	82. 51. 50,22	20,036
172	*.....	8.9	April 20	1,46	11. 50. 3,89	3,077	April 20	9,23	83. 48. 51,16	20,036
173	Bessel xi. 891.....	8	May 3	1,37	11. 51. 43,86	3,077	May 3	7,90	82. 15. 58,80	20,042
174	δ Virginis.....	7	April 20	1,48	11. 52. 13,21	3,074	April 20	9,50	85. 30. 14,37	20,043
175	Bessel xi. 903.....	8¼	May 4	1,38	11. 52. 32,06	3,075	May 4	8,40	84. 31. 35,60	20,044
176	— xi. 923.....	8	April 26	1,45	11. 53. 26,49	3,074	April 26	9,14	85. 31. 34,84	20,047
177	*.....	7.8	3	1,47	11. 53. 33,15	3,082	3	8,68	73. 18. 10,72	20,047
178	Bessel xi. 930.....	7.8	May 3	1,38	11. 53. 44,10	3,075	May 3	7,93	82. 39. 13,33	20,047
179	— xi. 951.....	8	4	1,40	11. 55. 10,09	3,073	4	8,45	85. 0. 44,53	20,050
180	— xi. 975.....	8.9	April 20	1,50	11. 56. 52,55	3,072	April 20	9,45	85. 59. 46,89	20,053
181	H. C. 22686.....	8	26	1,46	11. 56. 59,43	3,072	26	9,03	85. 35. 6,79	20,053
182	— 22700.....	8¼	3	1,48	11. 57. 30,03	3,075	3	8,77	74. 18. 24,61	20,054
183	*.....	10	20	-1,52	11. 59. 57,83	+ 3,149	20	-9,48	86. 39. 22,76	+ 20,055

No. 125. The estimation of magnitude was probably affected by the Moon being near.

No. 128. The N.P.D. agrees with that of H. C. 21809: Bessel's is 1' less.

No. 156. The R.A. is 10s greater than that of H. C. 22180, which is erroneously reduced.

No. 163. The N.P.D. is about 16" greater than that of B.A.C., but agrees with the N.P.D. of Bessel xi. 722.

No. 168. The N.P.D. is 15" greater than that of H. C.

Reference Number.	Name of Star.	Observed Magnitude.	Day of Observation of R.A.	Correction to Mean R.A. Jan. 1, 1849.	Concluded Mean R.A., or, Approximate R.A., Jan. 1, 1849.	Annual Variation in R.A.	Day of Observation of N.P.D.	Correction to Mean N.P.D. Jan. 1, 1849.	Concluded Mean N.P.D., or, Approximate N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.
				s.	h. m. s.	s.		"	° ' "	"
184	H. C. 22771.....	8	April 26	- 1,48	12. 0. 34,87	+ 3,070	April 26	- 8,90	85. 30. 2,97	+ 20,055
185	B.A.C. 4104.....	7.8	May 7	1,41	12. 3. 57,06	3,069	May 7	7,97	85. 6. 15,47	20,052
186	*.....	9	April 26	1,49	12. 4. 3,44	3,069	April 26	8,90	86. 2. 9,31	20,052
187	Bessel XII. 47.....	8	May 3	1,48	12. 4. 41,93	3,070	May 3	9,17	88. 57. 59,53	20,051
188	— XII. 68.....	8	April 20	1,52	12. 4. 47,42	3,069	April 20	9,16	85. 45. 23,80	20,050
189	*.....	8	May 4	1,44	12. 4. 47,38		May 4	8,32	85. 45. 22,88	
190	*.....	8.9	April 26	1,52	12. 7. 40,20	3,069	April 26	9,12	87. 40. 8,87	20,044
191	Bessel XII. 123.....	8	May 3	1,46	12. 8. 25,07	3,067	May 3	8,22	85. 35. 59,37	20,042
192	— XII. 123.....	8.9	4	1,46	12. 8. 24,99		4	8,16	85. 35. 59,34	
193	— XII. 138.....	7.8	7	1,44	12. 8. 25,20		7	7,95	85. 35. 59,55	
194	*.....	8.9	April 20	1,56	12. 9. 15,02	3,069	April 20	9,52	88. 48. 30,62	20,039
195	Bessel XII. 163.....	8	May 4	1,47	12. 10. 36,37	3,066	May 4	8,18	86. 3. 34,51	20,033
196	*.....	8	7	1,45	12. 10. 36,13		7	7,99	86. 3. 34,29	
197	*.....	7.8	April 26	1,54	12. 11. 17,70	3,068	April 26	9,07	87. 59. 44,64	20,030
198	c Virginis.....	6	20	1,55	12. 12. 41,02	3,065	20	8,91	85. 50. 45,52	20,024
199	*.....	5.6	May 3	1,48	12. 12. 41,36		May 3	8,13	85. 50. 45,73	
200	Bessel XII. 220.....	8	4	1,48	12. 13. 43,90	3,066	4	8,17	86. 25. 56,64	20,019
201	*.....	9	April 26	1,55	12. 14. 18,93	3,068	April 26	8,96	88. 6. 59,30	20,016
202	Bessel XII. 237.....	8	May 3	1,49	12. 14. 35,95	3,064	May 3	8,06	85. 51. 52,99	20,014
203	*.....	9.10	4	1,49	12. 15. 47,70	3,065	4	8,08	86. 18. 30,84	20,007
204	Bessel XII. 260.....	9.10	April 20	1,57	12. 15. 55,23	3,067	April 20	9,11	87. 38. 23,37	20,006
205	— XII. 269.....	8.9	21	1,57	12. 16. 57,63	3,067	21	9,06	87. 46. 46,34	20,000
206	*.....	7.8	May 3	1,52	12. 16. 57,73		May 3	8,44	87. 46. 46,27	
207	Bessel XII. 295.....	9	7	1,48	12. 17. 59,41	3,065	7	7,90	86. 44. 31,49	19,993
208	*.....	7.8	4	1,51	12. 18. 18,48	3,065	4	8,18	87. 7. 15,70	19,991
209	— XII. 312.....	9.10	April 20	1,59	12. 19. 16,80	3,069	April 20	9,21	89. 2. 38,14	19,984
210	— XII. 325.....	8.8	May 7	1,49	12. 19. 59,80	3,065	May 7	7,97	87. 19. 35,80	19,978
211	— XII. 342.....	8.4	4	1,51	12. 20. 34,55	3,062	4	7,81	85. 53. 35,51	19,974
212	*.....	8.9	7	1,49	12. 22. 2,04	3,063	7	7,70	86. 32. 47,15	19,963
213	Bessel XII. 376.....	10	April 21	1,62	12. 22. 35,05	3,073	April 21	9,38	91. 6. 23,81	19,957
214	— XII. 392.....	8.9	20	1,59	12. 23. 32,03	3,065	20	8,87	87. 50. 15,97	19,949
215	*.....	9	May 4	1,53	12. 23. 34,93	3,063	May 4	7,93	86. 51. 44,69	19,949
216	Bessel XII. 463.....	6.7	April 26	1,57	12. 27. 34,72	3,062	April 26	8,27	86. 54. 30,72	19,910
217	— XII. 490.....	8.9	21	1,64	12. 29. 20,52	3,075	21	9,17	91. 29. 2,19	19,891
218	— XII. 493.....	8.9	May 4	1,57	12. 29. 32,57	3,069	May 4	8,26	89. 21. 24,93	19,888
219	*.....	9.1	7	1,55	12. 30. 35,43	3,065	7	7,76	83. 8. 33,69	19,877
220	Bessel XII. 515.....	8	3	1,58	12. 30. 49,43	3,067	3	8,18	88. 57. 5,78	19,874
221	— XII. 530.....	8.9	4	1,58	12. 31. 41,10	3,069	4	8,20	89. 27. 55,58	19,864
222	*.....	8.9	April 26	1,59	12. 32. 27,56	3,062	April 26	8,20	87. 26. 27,94	19,854
223	*.....	8.9	May 3	1,58	12. 32. 56,84	3,067	May 3	8,09	88. 54. 25,16	19,848
224	Bessel XII. 557.....	9	7	1,57	12. 33. 19,32	3,070	7	8,04	89. 47. 20,27	19,843
225	γ Virginis.....	4.4	April 11	1,65	12. 34. 0,49	3,073	April 11	9,08	90. 37. 16,34	19,834
226	*.....	4.4	21	1,65	12. 34. 0,84		21	8,84	90. 37. 15,09	
227	Bessel XII. 585.....	8	May 4	1,59	12. 34. 34,05	3,069	May 4	8,09	89. 28. 45,92	19,827
228	— XII. 601.....	8.9	3	1,65	12. 34. 49,48	3,087	3	8,16	94. 38. 14,37	19,824
229	*.....	8.9	7	1,57	12. 35. 48,66	3,065	7	7,63	88. 21. 35,88	19,810
230	Bessel XII. 636.....	8	April 26	1,61	12. 36. 41,93	3,063	April 26	8,13	88. 1. 19,81	19,798
231	— XII. 638.....	9	May 3	1,64	12. 37. 31,96	3,082	May 3	8,77	93. 3. 41,81	19,787
232	— XII. 645.....	8.9	April 21	1,63	12. 37. 36,38	3,063	April 21	8,36	88. 6. 53,17	19,786
233	— XII. 660.....	9	May 7	1,57	12. 37. 51,06	3,064	May 7	7,50	88. 11. 10,37	19,782
234	— XII. 664.....	8	April 11	1,68	12. 38. 45,38	3,083	April 11	9,10	93. 11. 89,96	19,769
235	— XII. 688.....	9	26	1,64	12. 38. 56,17	3,071	26	8,33	89. 50. 9,07	19,766
236	— XII. 726.....	8	May 7	1,59	12. 40. 23,11	3,069	May 7	8,45	89. 32. 0,93	19,744
237	— XII. 729.....	7.8	April 11	1,66	12. 42. 20,06	3,064	April 11	7,41	88. 30. 33,25	19,714
238	*.....	9	21	1,66	12. 42. 39,02	3,075	21	8,77	91. 0. 5,60	19,709
239	— XII. 736.....	8.4	May 3	1,63	12. 42. 59,13	3,070	May 3	8,41	89. 55. 40,77	19,703
240	*.....	9.10	April 26	1,66	12. 43. 12,02	3,074	April 26	8,35	89. 55. 42,49	
241	38 Virginis.....	6.7	May 3	1,67	12. 43. 27,69	3,083	May 3	8,82	90. 42. 18,80	19,700
242	Bessel XII. 781.....	9.10	April 21	1,66	12. 45. 43,82	+ 3,070	April 21	8,29	92. 43. 53,88	19,661
243	*.....	8.4	May 7	- 1,62	12. 45. 43,91		May 7	- 7,57	89. 56. 30,27	+ 19,657
244									89. 56. 32,07	

No. 187. The minutes of the R.A. are doubtful: Bessel's R.A. is 1^m less.

Reference Number.	Name of Star.	Observed Magnitude.	Day of Observation of R.A.	Correction to Mean R.A. Jan. 1, 1849.	Concluded Mean R.A., or, Approximate R.A., Jan. 1, 1849.	Annual Variation in R.A.	Day of Observation of N.P.D.	Correction to Mean N.P.D. Jan. 1, 1849.	Concluded Mean N.P.D., or, Approximate N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.
				s.	h. m. s.	s.		"	° ' "	"
245	*	8	April 11	-1,66	12. 46. 23,84	+ 3,074	April 11	- 8,59	90. 39. 2,93	+ 19,645
246	*	8	May 7	1,62	12. 47. 48,76	3,072	May 7	7,57	90. 18. 14,88	19,620
247	Bessel xii. 820.....	8	3	1,68	12. 47. 55,82	3,084	3	8,22	92. 43. 54,98	19,618
248	— xii. 861.....	8.9	April 11	1,68	12. 50. 8,95	3,077	April 11	8,49	91. 14. 12,27	19,577
249	— xii. 867.....	7.8	May 7	1,64	12. 50. 43,55	3,072	May 7	7,43	90. 14. 7,08	19,566
250	— xii. 870.....	7.8	3	1,68	12. 50. 54,00	3,081	3	7,98	92. 5. 9,30	19,562
251	— xii. 870.....	6.7	22	1,58	12. 50. 53,33		22	7,04	92. 5. 9,68	
252	*	9.10	April 11	1,68	12. 53. 50,29	3,074	April 11	8,31	90. 42. 40,03	19,504
253	H. C. 24249.....	8	May 7	1,64	12. 54. 34,42	3,063	May 7	6,95	88. 37. 51,06	19,489
254	— 24264.....	8½	3	1,69	12. 55. 13,60	3,084	3	7,84	92. 20. 37,22	19,475
255	*	9	22	1,61	12. 55. 31,10	3,083	22	6,84	92. 9. 2,22	19,470
256	Bessel xii. 989.....	8	April 11	1,67	12. 57. 26,20	3,073	April 11	8,15	90. 21. 16,22	19,429
257	*	8	May 3	1,71	12. 58. 16,37	3,084	May 3	7,66	92. 19. 18,23	19,410
258	Bessel xii. 1053.....	8	3	1,70	13. 0. 44,49	3,082	3	7,50	91. 52. 21,35	19,355
259	— xii. 1058.....	8.9	22	1,67	13. 0. 59,75	3,103	22	7,37	95. 11. 14,19	19,349
260	— xiii. 27.....	7	22	1,66	13. 2. (53,25)	3,097	22	7,02	94. 8. 9,89	19,305
261	— xiii. 31.....	8	3	1,71	13. 3. (11,78)	3,083	3	7,28	91. 55. 28,12	19,297
262	— xiii. 74.....	9	22	1,67	13. 5. 22,43	3,098	22	6,93	94. 13. 0,05	19,245
263	— xiii. 124.....	8	23	1,66	13. 8. 11,21	3,086	23	6,26	92. 18. 29,89	19,174
264	H. C. 24610.....	7.8	22	1,69	13. 8. 13,95	3,104	22	6,94	94. 52. 3,63	19,173
265	*	10	April 21	1,74	13. 8. 28,13	3,092	April 21	7,72	93. 3. 59,84	19,167
266	Bessel xiii. 169.....	8.9	May 22	1,71	13. 10. 27,85	3,106	May 22	6,84	94. 59. 30,90	19,115
267	— xiii. 197.....	9	April 21	1,78	13. 11. 54,52	3,112	April 21	7,77	95. 44. 44,23	19,076
268	— xiii. 209.....	9	May 23	1,68	13. 12. 54,61	3,091	May 23	6,14	92. 44. 21,42	19,049
269	— xiii. 215.....	7.8	22	1,72	13. 13. 11,00	3,106	22	6,69	94. 52. 16,89	19,041
270	— xiii. 320.....	7.8	22	1,76	13. 19. 49,65	3,119	22	6,65	96. 1. 53,09	18,851
271	— xiii. 336.....	8	23	1,75	13. 21. 12,47	3,113	23	6,33	95. 10. 19,04	18,809
272	l Virginis.....	6.7	22	1,77	13. 22. 33,19	3,118	22	6,43	95. 41. 21,69	18,768
273	Bessel xiii. 395.....	8	23	1,76	13. 24. 1,15	3,114	23	6,21	95. 14. 1,12	18,722
274	— xiii. 409.....	9	22	1,77	13. 24. 37,60	3,114	22	6,21	95. 9. 57,08	18,703
275	H. C. 25106.....	7.8	22	1,79	13. 27. 11,50	3,124	22	6,31	96. 11. 32,76	18,621
276	— 25158.....	8½	23	1,78	13. 27. 11,78		23	6,28	96. 11. 31,17	
277	— 25158.....	8.9	7	1,82	13. 29. 23,85	3,116	7	6,55	95. 7. 7,52	18,549
278	81 Virginis.....	7.8	23	1,81	13. 29. 40,83	3,134	23	6,36	97. 5. 57,42	18,539
279	Bessel xiii. 507.....	8	22	1,80	13. 29. 46,03	3,123	22	6,10	95. 52. 51,75	18,536
280	— xiii. 529.....	8½	3	1,86	13. 30. 45,59	3,140	3	6,92	97. 39. 1,76	18,503
281	— xiii. 559.....	9	7	1,86	13. 32. 22,02	3,137	7	6,72	97. 15. 6,19	18,448
282	— xiii. 563.....	7½	23	1,78	13. 32. 34,50	3,112	23	5,61	94. 28. 43,20	18,441
283	m Virginis.....	7	22	1,84	13. 33. 41,03	3,145	22	6,36	97. 56. 19,33	18,403
284	Bessel xiii. 610.....	9	3	1,88	13. 35. 14,81	3,151	3	6,80	98. 25. 58,34	18,348
285	— xiii. 616.....	8½	7	1,86	13. 35. 41,22	3,154	7	6,48	96. 39. 50,80	18,333
286	B.A.C. 4572.....	6.7	23	1,80	13. 36. 3,64	3,116	23	5,50	94. 44. 10,83	18,319
287	— 4576.....	7	31	1,90	13. 36. 39,27	3,202	31	7,21	103. 27. 24,80	18,299
288	Bessel xiii. 661.....	9	22	1,84	13. 37. 59,16	3,139	22	5,94	97. 2. 2,68	18,250
289	— xiii. 667.....	8.9	3	1,87	13. 38. 25,50	3,146	3	6,53	97. 40. 36,96	18,234
290	— xiii. 669.....		7	1,83	13. 38. 28,48	3,111	7	5,99	94. 7. 6,38	18,232
291	*	8.9	23	1,81	13. 39. 2,19	3,116	23	5,34	94. 41. 16,02	18,211
292	B.A.C. 4593.....	7¼	31	1,79	13. 39. 31,57	3,129	31	5,20	95. 56. 54,86	18,193
293	Bessel xiii. 717.....	9	23	1,82	13. 41. 24,54	3,119	23	5,26	94. 52. 37,25	18,124
294	— xiii. 721.....	8.9	7	1,88	13. 41. 36,74	3,146	7	6,28	97. 29. 58,64	18,116
295	*		3	1,94	13. 41. 42,13	3,190	3	6,77	101. 47. 55,64	18,113
296	Bessel xiii. 756.....	7.8	7	1,87	13. 43. 49,85	3,136	7	6,03	96. 25. 24,93	18,031
297	*	8	3	1,98	13. 45. 43,88	3,218	3	6,73	103. 55. 1,73	17,959
298	B.A.C. 4647.....	7	7	1,89	13. 47. 3,57	3,148	7	5,97	97. 18. 49,14	17,906
299	Bessel xiii. 858.....	8	7	1,86	13. 49. 47,11	3,122	7	5,53	94. 44. 33,61	17,798
300	— xiii. 886.....	7¼	7	1,93	13. 51. 34,51	3,122	7	5,43	94. 40. 46,18	17,724
301	— xiii. 928.....	8.9	7	1,87	13. 53. 50,70	3,126	7	5,36	94. 56. 4,76	17,631
302	— xiii. 970.....	8	31	1,94	13. 55. 50,17	3,191	31	5,41	100. 32. 38,32	17,547
303	*	8	7	1,88	13. 56. 54,37	3,126	7	5,19	94. 49. 28,29	17,502
304	94 Virginis.....	6.7	31	1,91	13. 58. 17,80	3,165	31	4,74	98. 10. 6,28	17,442
305	Bessel xiii. 1043...	8½	7	-1,88	13. 58. 52,16	+ 3,126	7	- 5,09	94. 47. 29,06	+ 17,417

Nº. 260. Bessel's R.A. is about 1°, 7 greater.

Nº. 264. Bessel xiii. 131 is of greater R.A. by 12", agreeing well enough in N.P.D. Two stars were not noticed.

Nº. 265. Agrees in R.A. with Bessel xiii. 128, but has less N.P.D. by about 2¼'.

Nº. 290. The same star as H. C. 25378, supposing an error of 1° in excess in the N.P.D. of H. C.

Reference Number.	Name of Star.	Observed Magnitude.	Day of Observation of R.A.	Correction to Mean R.A.	Concluded Mean R.A., or, Approximate R.A., Jan. 1, 1849.			Annual Variation in R.A.	Day of Observation of N.P.D.	Correction to Mean N.P.D.	Concluded Mean N.P.D., or, Approximate N.P.D., Jan. 1, 1849.			Annual Variation in N.P.D.
				s.	h.	m.	s.	s.		"	°	'	"	
306	Bessel xiii. 1081 ...	9	May 23	-1,94	14.	0.	38,50	+3,167	May 23	-4,92	98.	8.	31,75	+17,340
307	— xiii. 1089 ...	8	31	1,91	14.	1.	5,13	3,157	31	4,38	97.	17.	6,89	17,321
308	— xiv. 83.....	8.9	31	1,94	14.	5.	28,61	3,172	31	4,34	98.	17.	11,01	17,123
309	— xiv. 145.	7	31	1,95	14.	8.	48,13	3,173	31	4,19	98.	10.	48,03	16,970
310	— xiv. 231.	8	31	2,01	14.	13.	10,07	3,209	31	4,45	100.	42.	11,68	16,764
311	— xiv. 248.	7	22	1,97	14.	14.	3,30	3,166	22	4,10	97.	23.	50,24	16,721
312	B.A.C. 4772.	7	31	2,02	14.	16.	34,48	3,216	31	4,30	100.	58.	51,68	16,599
313	*.....	9½	22	1,93	14.	17.	44,51	3,182	22	4,05	98.	23.	28,41	16,541
314	Bessel xiv. 333.	9	31	2,03	14.	18.	30,04	3,217	31	4,18	100.	56.	20,40	16,503
315	*.....	9.10	22	2,00	14.	20.	34,03	3,114	22	3,87	98.	14.	48,15	16,400
316	Bessel xiv. 418.	9	31	2,08	14.	22.	53,84	3,248	31	4,29	102.	47.	36,28	16,281
317	*.....	9	22	2,00	14.	22.	58,73	3,180	22	3,71	97.	57.	42,64	16,278
318	H. C. 26504.	8			14.	24.	0		June 8	5,02	107.	12.	35,93	16,225
319	— 26546.	8	June 2	2,19	14.	25.	47,97	3,337	2	5,17	108.	33.	32,27	16,132
320	*.....	9	May 22	2,02	14.	25.	51,95	3,194	May 22	3,68	98.	49.	43,67	16,128
321	Bessel xiv. 469.	8.9	31	2,09	14.	25.	56,09	3,251	31	4,10	102.	48.	43,69	16,125
322	— xiv. 491.	8.9	June 9	2,05	14.	26.	56,29	3,242	June 9	3,63	102.	4.	26,00	16,073
323	— xiv. 512.	8			14.	28.	6		8	3,91	103.	21.	55,52	16,011
324	— xiv. 516.	8	May 22	2,03	14.	28.	13,88	3,197	May 22	3,57	98.	56.	57,00	16,004
325		7	June 11	2,00	14.	28.	14,33		June 11	2,75	98.	56.	58,85	
326	B.A.C. 4828.	7	May 31	2,08	14.	28.	57,43	3,238	May 31	3,73	101.	39.	37,89	15,966
327		6.7			14.	28.	57		June 13	3,29	101.	39.	35,75	
328	Bessel xiv. 557.	7½			14.	30.	0		8	2,83	99.	4.	49,98	15,912
329		8.9	June 9	2,02	14.	29.	59,50	3,201	9	2,79	99.	4.	49,79	
330	H. C. 26691.	8.9	11	2,13	14.	31.	18,65	3,305	11	4,22	105.	56.	7,17	15,840
331	Bessel xiv. 583.	9	May 31	2,09	14.	31.	34,32	3,241	May 31	3,55	101.	42.	53,89	15,826
332	H. C. 26719.	6.7	June 2	2,23	14.	32.	56,20	3,360	June 2	5,11	109.	16.	32,80	15,753
333	Bessel xiv. 607.	9	9	2,10	14.	33.	4,51	3,266	9	3,54	103.	16.	40,50	15,745
334	— xiv. 608.	7.8	May 22	2,07	14.	33.	9,96	3,227	May 22	3,54	100.	42.	45,98	15,741
335	B.A.C. 4848.	8	31	2,09	14.	33.	50,89	3,241	31	3,39	101.	35.	9,45	15,703
336		6.7			14.	33.	51		June 13	2,99	101.	35.	9,01	
337	Bessel xiv. 641.	9	June 11	2,05	14.	34.	56,96	3,221	11	2,67	100.	11.	35,86	15,643
338	— xiv. 671.	7	8	2,05	14.	36.	40,50	3,205	8	2,43	99.	3.	35,59	15,549
339	— xiv. 680.	9	May 31	2,11	14.	37.	1,97	3,256	May 31	3,35	102.	20.	0,43	15,529
340	H. C. 26863.	7	June 2	2,23	14.	37.	34,10	3,352	June 2	4,32	108.	20.	18,54	15,499
341	5 Libræ.	7			14.	37.	39		13	3,53	104.	49.	9,91	15,495
342	Bessel xiv. 725.	8½	8	2,09	14.	38.	55,36	3,235	8	2,70	100.	54.	52,56	15,424
343		9½	9	2,08	14.	38.	55,63		9	2,67	100.	54.	52,30	
344	— xiv. 739.	7.8	11	2,10	14.	39.	41,42	3,256	11	2,85	102.	12.	4,49	15,381
345	— xiv. 830.	8			14.	43.	57		13	2,68	102.	52.	47,90	15,138
346	— xiv. 852.	8	8	2,12	14.	45.	5,67	3,252	8	2,48	101.	36.	28,54	15,072
347		9	9	2,12	14.	45.	5,11		9	2,43	101.	36.	29,14	
348	— xiv. 891.	9	11	2,17	14.	47.	12,14	3,305	11	2,94	104.	43.	23,46	14,950
349	H. C. 27159.	7½	8	2,25	14.	47.	47,62	3,366	8	3,64	108.	18.	49,07	14,916
350	Bessel xiv. 931.	8.9	9	2,14	14.	49.	22,41	3,262	9	2,28	102.	1.	36,03	14,824
351	H. C. 27219.	6½	2	2,24	14.	49.	39,53	3,342	2	3,26	106.	45.	11,94	14,806
352	18 Libræ.	7.8	8	2,12	14.	50.	43,93	3,239	8	1,93	100.	32.	0,56	14,742
353	H. C. 27263.	9			14.	50.	50		13	3,54	108.	48.	2,35	14,737
354	— 27270.	9.10	11	2,31	14.	51.	8,32	3,411	11	3,87	110.	34.	20,53	14,719
355	Bessel xiv. 990.	8	1	2,19	14.	52.	34,47	3,306	1	2,70	104.	25.	26,91	14,633
356	H. C. 27313.	9	9	2,27	14.	52.	59,86	3,372	9	3,28	108.	12.	6,41	14,607
357		8.9			14.	53.	0		13	3,27	108.	12.	6,80	
358	Bessel xiv. 1008.	8.9	8	2,15	14.	53.	30,30	3,261	8	1,99	101.	43.	6,45	14,577
359	*.....	9	2	2,29	14.	54.	12,44	3,383	2	3,26	108.	43.	56,60	14,535
360	Bessel xiv. 1031.	8	11	2,16	14.	54.	52,65	3,271	11	1,92	102.	15.	36,45	14,494
361	H. C. 27385.	7½	1	2,78	14.	55.	6,48	3,336	1	2,78	105.	59.	42,54	14,481
362		8			14.	55.	6		13	2,65	105.	59.	38,29	
363	— 27418.	7.8	8	2,20	14.	55.	23,19	3,308	8	2,39	104.	24.	13,75	14,464
364	Bessel xiv. 1066.	9	May 22	2,15	14.	56.	11,73	3,273	May 22	2,35	102.	17.	25,77	14,414
365	H. C. 27451.	8	June 2	-2,30	14.	57.	40,77	+3,389	June 2	-3,33	108.	47.	10,73	+14,324

Nº. 326. The R.A. is perhaps 1^s in defect.
 Nº. 351. The N.P.D. is 5' less than that of H. C.

Nº. 330. The N.P.D. of H. C. is about 1' less.
 Nº. 363. The R.A. is about 2½^s less than that of H. C.

Reference Number.	Name of Star.	Observed Magnitude.	Day of Observation of R.A.	Correction to Mean R.A. Jan. 1, 1849.	Concluded Mean R.A., or, Approximate R.A., Jan. 1, 1849.	Annual Variation in R.A.	Day of Observation of N.P.D.	Correction to Mean N.P.D. Jan. 1, 1849.	Concluded Mean N.P.D., or, Approximate N.P.D., Jan. 1, 1849.	Annual Variation in N.P.D.
				s.	h. m. s.	s.		"	° ' "	"
366	♈ Libræ	6.7	June 1	-2,24	14.58.12,84	+3,334	June 1	-2,50	105.40.4,73	+14,291
367	Bessel xiv. 1099....	6			14.58.13		13	2,37	105.39.59,55	
368	— xiv. 1109....	8	May 22	2,15	14.58.17,22	3,275	May 22	2,22	102.19.5,65	14,287
369	H. C. 27488.....	8.9	June 11	2,20	14.58.47,08	3,306	June 11	2,03	104.1.46,40	14,256
370	— 27519.....	9	9	2,33	14.58.47,08	3,415	9	3,22	110.6.54,45	14,256
371	Bessel xv. 4.....	8	8	2,39	15.0.7,73	3,462	8	3,54	112.29.0,53	14,173
372	H. C. 27583.....	8.9	May 22		15.1.29	3,328	13	2,05	105.7.32,98	14,089
373	Bessel xv. 52.....	9	June 9	2,16	15.1.36,31	3,280	May 22	2,04	102.23.51,82	14,082
374	— xv. 61.....	8	11	2,22	15.3.52,91	3,307	June 9	1,72	103.49.16,26	13,939
375	*.....	8.9	8	2,23	15.4.20,49	3,313	11	1,71	104.7.17,64	13,910
376	♈ Libræ	7	1	2,34	15.4.39,09	3,416	8	2,73	109.40.50,67	13,890
377	Bessel xv. 79.....	7 ³ / ₄	May 22	2,32	15.4.43,60	3,404	1	2,56	109.4.30,77	13,886
378	— xv. 122.....	8.9	June 11	2,18	15.5.27,02	3,302	May 22	1,91	103.27.13,95	13,840
379	*.....	9	1	2,24	15.7.22,68	3,316	June 11	1,52	104.7.40,17	13,717
380	Bessel xv. 148.....	8.9	May 22	2,34	15.8.7,24	3,416	1	2,36	109.26.14,23	13,670
381	— xv. 206.....	7 ³ / ₄	22	2,19	15.8.36,60	3,316	May 22	1,76	104.2.13,15	13,638
382	— xv. 215.....	8	June 11	2,18	15.11.50,48	3,293	22	1,46	102.38.23,52	13,430
383	28 Libræ	7	1	2,25	15.12.14,19	3,322	June 11	1,21	104.11.26,13	13,404
384	*.....	6.7		2,31	15.12.20,42	3,386	1	1,84	107.36.23,07	13,398
385	H. C. 28012.....	8	9		15.12.20		13	1,81	107.36.19,48	
386	Bessel xv. 314.....	7.8	11	2,19	15.14.25,34	3,360	9	0,41	100.6.27,65	13,261
387	*.....	8.9			15.15.2		13	1,35	106.1.13,51	13,221
388	H. C. 28117.....	9		2,28	15.17.11,26	3,340	11	1,03	104.54.30,95	13,079
389	— 28136.....	6.7	1		15.17.42		13	1,25	106.31.31,72	13,045
390	♈ Libræ	8.9	9	2,36	15.18.10,31	3,430	1	1,67	109.28.19,15	13,013
391	♈ Libræ	7	11	2,31	15.19.7,84	3,363	9	1,11	105.57.27,22	12,949
392	♈ Libræ	8		2,33	15.21.2,49	3,383	11	1,12	106.54.55,56	12,822
393	♈ Libræ	7.8	9		15.21.2		13	1,08	106.54.55,13	
394	*.....	8.9		2,32	15.22.9,78	3,368	9	0,93	106.5.12,64	12,745
395	♈ Libræ	7	11		15.24.12		13	0,97	107.24.44,02	12,607
396	Bessel xv. 472.....	9	9	2,33	15.24.23,88	3,376	11	0,79	106.20.11,76	12,594
397	H. C. 28389.....	8		2,29	15.25.39,68	3,338	9	0,44	104.21.17,71	12,507
398	*.....	9.10	9		15.28.3		13	0,55	106.30.26,48	12,344
399	*.....	9.10		2,32	15.29.15,67	3,358	9	0,33	105.12.43,43	12,259
400	Bessel xv. 637.....	9	9		15.30.28		13	0,41	106.34.10,39	12,176
401	H. C. 28603.....	7	11	2,33	15.33.11,41	3,359	9	0,05	105.4.5,30	11,986
402	*.....	9		2,29	15.34.45,60	3,311	11	0,48	102.34.0,18	11,874
403	*.....	9	9		15.35.30		13	-0,12	106.56.43,27	11,823
404	H. C. 28717.....	8		2,35	15.37.52,43	3,376	9	+0,16	105.41.1,64	11,656
405	— 28780.....	7.8	9		15.38.17		13	0,11	106.38.1,90	11,626
406	*.....	7.8		2,39	15.41.14,47	3,416	9	0,16	107.26.10,62	11,415
407	*.....	8			15.41.14		13	0,18	107.26.9,36	
408	*.....	8			15.42.28		14	0,42	106.32.17,23	11,326
409	*.....	8			15.43.36		13	0,26	107.58.41,27	11,244
410	47 Libræ	9	9	2,39	15.44.38,95	3,421	9	0,38	107.30.44,37	11,165
411	*.....	9.10			15.46.17		14	0,30	108.55.55,40	11,048
412	*.....	9	9	2,41	15.46.51	3,425	13	0,64	106.48.17,76	11,007
413	*.....	8.9			15.47.11,01		9	0,53	107.34.59,41	10,983
414	*.....	8.9	9	2,37	15.49.21	3,390	14	0,85	106.38.40,87	10,823
415	H. C. 29052.....	9			15.50.39,93		9	0,98	105.47.5,62	10,726
416	— 29130.....	8.9	9	2,44	15.50.41	3,463	13	0,90	106.51.1,72	10,725
417	— 29310.....	8			15.53.30,08		9	0,80	109.1.31,70	10,516
418	*.....	9.10	9	2,39	15.58.39	3,396	13	1,30	107.57.16,83	10,130
419	H. C. 29395.....	7			16.0.7,37		9	1,60	105.41.12,68	10,018
420	*.....	7.8			16.1.14		13	1,47	107.56.5,38	9,934
421	*.....	7.8			16.3.19		13	1,63	107.50.5,27	9,775
422	*.....	9.10	9	2,44	16.4.45,30	3,445	9	1,71	107.42.32,87	9,665
423	*.....	9	9	2,45	16.8.4	3,453	13	2,03	107.5.35,19	9,410
424	*.....	9			16.9.9,93		9	1,98	107.54.4,93	9,325
425	H. C. 29778.....	7.8	9	-2,43	16.12.21	+3,428	13	2,28	107.20.43,15	9,077
426					16.14.(14,27)		9	+2,43	106.39.30,42	+8,930

Nº. 384. The magnitude was estimated doubtfully.

Nº. 402. The N.P.D. agrees with that of H. C.: the N.P.D. of Bessel xv. 666 is 10' greater.

Nº. 426. The R.A. of H. C. is 3^s less.

RIGHT ASCENSIONS
AND
GEOCENTRIC NORTH POLAR DISTANCES
OF THE PLANETS
FLORA, IRIS, METIS, HEBE, ASTRÆA, AND NEPTUNE,
CONCLUDED FROM
OBSERVATIONS WITH THE TRANSIT AND MURAL CIRCLE,
AND COMPARED
WITH CALCULATED RIGHT ASCENSIONS AND NORTH POLAR DISTANCES.

1849.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF FLORA.

Greenwich Mean Solar Time of Transit.	R.A. from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Parallax.	Geocentric N.P.D. from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d. h. m. s.	h. m. s.	s.	s.	"	° ' "	"	"
May 22. 9. 47. 48,7	13. 49. 47,04	49,06	+ 2,02	4,19	92. 9. 38,42	44,90	+ 6,48
23. 9. 44. 15,7	13. 50. 10,06	11,75	+ 1,69	4,18	92. 9. 12,80	21,80	+ 9,00
29. 9. 16. 28,6				4,06	92. 10. 40,92	52,24	+ 11,32

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF IRIS.

Jan. 30. 13. 30. 35,6	10. 11. 36,65	36,74	+ 0,09	4,49	87. 33. 6,90	6,57	- 0,33
31. 13. 25. 45,1	10. 10. 41,91	42,05	+ 0,14	4,49	87. 30. 25,20	25,97	+ 0,77
Feb. 8. 12. 46. 32,9	10. 2. 55,65	55,91	+ 0,26	4,49	87. 3. 6,69	6,23	- 0,46
10. 12. 36. 39,5	10. 0. 53,75	54,01	+ 0,26	4,48	86. 54. 47,79	48,93	+ 1,14
12. 12. 26. 45,2	9. 58. 50,97	51,16	+ 0,19	4,47	86. 46. 0,85	2,21	+ 1,36
13. 12. 21. 47,9	9. 57. 49,38	49,56	+ 0,18	4,46	86. 41. 26,72	28,75	+ 2,03
16. 12. 6. 56,2	9. 54. 44,89	45,02	+ 0,13	4,43	86. 27. 12,98	12,72	- 0,26
17. 12. 1. 59,1	9. 53. 43,56	43,85	+ 0,29				
19. 11. 52. 4,2				4,39	86. 12. 8,73	12,21	+ 3,48
20. 11. 47. 10,7	9. 50. 42,34	42,50	+ 0,16	4,37	86. 7. 3,55	4,24	+ 0,69
22. 11. 37. 20,8	9. 48. 43,97	44,18	+ 0,21	4,34	85. 56. 39,11	39,24	+ 0,13
26. 11. 17. 50,4	9. 44. 56,57	56,39	- 0,18	4,27	85. 35. 25,12	25,94	+ 0,82
27. 11. 12. 59,7	9. 44. 1,60	1,69	+ 0,09	4,25	85. 30. 2,63	2,72	+ 0,09
28. 11. 8. 10,2	9. 43. 7,93	8,03	+ 0,10	4,23	85. 24. 43,59	44,75	+ 1,16
Mar. 2. 10. 58. 34,8	9. 41. 23,97	24,00	+ 0,03	4,19	85. 14. 5,55	5,07	- 0,48
5. 10. 44. 20,4	9. 38. 56,96	57,07	+ 0,11	4,12	84. 58. 13,94	15,19	+ 1,25
6. 10. 39. 38,2				4,09	84. 53. 1,50	2,58	+ 1,08
21. 9. 32. 6,8	9. 29. 36,30	36,37	+ 0,07	3,70	83. 42. 36,82	39,54	+ 2,72
24. 9. 19. 20,7	9. 28. 37,77	38,42	+ 0,65				
Apr. 5. 8. 30. 51,0	9. 27. 18,70	18,75	+ 0,05	3,31	82. 54. 51,50	56,62	+ 5,12
7. 8. 23. 9,2	9. 27. 23,72	28,67	- 0,05	3,26	82. 50. 35,55	39,62	+ 4,07
11. 8. 8. 3,8	9. 28. 7,11	7,17	+ 0,06	3,16	82. 43. 35,30	36,34	+ 1,04
17. 7. 46. 10,0	9. 29. 48,98	49,39	+ 0,41				

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF METIS.

July 27. 14. 17. 26,3	22. 40. 21,68	21,50	- 0,18	5,29	107. 47. 10,37	4,45	- 5,92
31. 13. 59. 32,2	22. 38. 10,92	10,61	- 0,31	5,40	108. 12. 0,11	45,57	- 14,54
Aug. 3. 13. 45. 51,0	22. 36. 17,11	16,60	- 0,51	5,48	108. 31. 15,91	0,23	- 15,68
8. 13. 22. 34,0	22. 32. 39,03	38,73	- 0,30	5,60	109. 3. 60,22	54,90	- 5,32
9. 13. 17. 51,1	22. 31. 51,95	51,31	- 0,64	5,62	109. 10. 45,91	33,31	- 12,60
13. 12. 58. 46,9	22. 28. 30,79	30,45	- 0,34	5,69	109. 37. 12,04	1,45	- 10,59
16. 12. 44. 19,1	22. 25. 50,32	49,60	- 0,72	5,74	109. 56. 47,65	32,51	- 15,14
17. 12. 39. 28,9	22. 24. 54,91	54,37	- 0,54	5,76	110. 2. 66,03	56,19	- 9,84
18. 12. 34. 36,1	22. 23. 58,84	58,47	- 0,37				
28. 11. 45. 38,8	22. 14. 19,02	18,64	- 0,38				
Sept. 11. 10. 37. 50,2	22. 1. 31,02	30,43	- 0,54	5,73	112. 0. 33,16	13,70	- 19,46
17. 10. 9. 44,3	21. 56. 59,74	59,39	- 0,35	5,63	112. 11. 20,16	7,42	- 12,74
19. 10. 0. 33,7	21. 55. 40,75	40,37	- 0,38	5,59	112. 13. 4,99	2,91	- 2,08
21. 9. 51. 29,3				5,54	112. 14. 13,46	7,30	- 6,16
25. 9. 33. 40,3	21. 52. 22,25	22,30	+ 0,05	5,45	112. 13. 72,01	45,26	- 26,75
26. 9. 29. 17,7	21. 51. 55,53	55,31	- 0,22	5,42	112. 13. 25,90	8,81	- 17,09
Oct. 2. 9. 3. 38,7				5,27	112. 5. 37,20	22,45	- 14,75
8. 8. 39. 5,7	21. 48. 53,90	53,40	- 0,50	5,10	111. 50. 71,09	53,79	- 17,30
9. 8. 35. 6,8	21. 48. 50,85	50,26	- 0,59	5,07	111. 47. 67,84	52,15	- 15,69
10. 8. 31. 9,2	21. 48. 49,18	48,96	- 0,22	5,04	111. 44. 58,21	40,32	- 17,89
13. 8. 19. 28,7	21. 48. 56,41	56,19	- 0,22				
18. 8. 0. 37,5	21. 49. 44,94	44,70	- 0,24	4,80	111. 13. 30,55	17,52	- 13,03
19. 7. 56. 56,6	21. 49. 59,98	59,78	- 0,20				
26. 7. 31. 57,9	21. 52. 33,05	33,36	+ 0,31	4,57	110. 32. 39,15	26,65	- 12,50
31. 7. 14. 56,6	21. 55. 11,64	11,60	- 0,04	4,43	110. 2. 51,63	38,46	- 13,17

Greenwich Mean Solar Time of Transit.	R.A. from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Parallax.	Geocentric N.P.D. from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d. h. m. s.	h. m. s.	s.	s.	"	° ' "	"	"
Nov. 5. 6. 58.32,4	21. 58. 27,59	27,10	- 0,49	4,29	109. 29. 59,74	50,44	- 9,30
6. 6. 55.19,4	21. 59. 10,63	10,44	- 0,19	4,26	109. 22. 59,43	56,19	- 3,24
10. 6. 42.42,0	22. 2. 17,36	17,18	- 0,18	4,15	108. 54. 23,58	13,51	- 10,07
13. 6. 33.27,0	22. 4. 50,46	50,79	+ 0,33	4,07	108. 31. 49,20	33,97	- 15,23
17. 6. 21.25,8	22. 8. 33,52	32,60	- 0,92	3,97	107. 59. 60,27	55,12	- 5,15
21. 6. 9.39,8	22. 12. 31,83	32,57	+ 0,74	3,87	107. 26. 54,65	42,02	- 12,63
24. 6. 1. 4,6	22. 15. 44,92	43,63	- 1,29				
Dec. 6. 5. 27.57,8				3,53	105. 9. 29,23	7,03	- 22,20

Aug. 13, Oct. 9, Oct. 13, and Nov. 21. At only two wires.

Aug. 16. See the Transit observation.

Nov. 13. See the Transit observation: wire IV probably should not have been altered.

The observations were generally uncertain, the Planet being low and too faint for bisection with fine wires in an illuminated field.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF HEBE.

Jan. 2. 11. 0.53,1	5. 51. 6,01	8,30	+ 2,29	4,80	84. 43. 31,33	34,37	+ 3,04
5. 10. 46.26,1	5. 48. 26,25	28,27	+ 2,02	4,70	84. 16. 39,09	41,79	+ 2,70
15. 9. 59.48,8	5. 41. 6,85	8,79	+ 1,94	4,35	82. 39. 46,92	43,85	- 3,07
17. 9. 50.49,4	5. 39. 59,12	60,89	+ 1,77				
20. 9. 38.33,5	5. 39. 30,84	32,76	+ 1,92	4,16	81. 48. 40,54	36,25	- 4,29
22. 9. 28.52,5	5. 37. 41,39	43,50	+ 2,11	4,08	81. 27. 59,26	56,12	- 3,14
23. 9. 24.35,0	5. 37. 19,70	21,74	+ 2,04	4,04	81. 17. 41,51	34,38	- 7,13
26. 9. 11.53,9	5. 36. 26,18	28,18	+ 2,00	3,92	80. 46. 32,46	27,31	- 5,15
31. 8. 51.24,4	5. 35. 36,11	38,15	+ 2,04	3,73	79. 54. 53,20	48,19	- 5,01
Feb. 8. 8. 20.17,2	5. 35. 56,20	58,47	+ 2,27	3,42	78. 34. 8,36	56,87	- 11,49
10. 8. 12.49,2	5. 36. 20,12	22,19	+ 2,07	3,35	78. 14. 23,79	15,60	- 8,19
12. 8. 5.28,2				3,28	77. 54. 55,46	49,75	- 5,71
15. 7. 54.39,9	5. 37. 50,60	52,60	+ 2,00	3,17	77. 26. 18,09	12,49	- 5,60
16. 7. 51. 6,7	5. 38. 13,39	15,88	+ 2,49	3,14	77. 17. 1,23	49,02	- 12,21
17. 7. 47.35,7	5. 38. 38,36	40,85	+ 2,49	3,10	77. 7. 41,60	30,24	- 11,36
19. 7. 40.39,1	5. 39. 33,77	35,78	+ 2,01	3,04	76. 49. 21,81	7,15	- 14,66
22. 7. 30.25,7				2,94	76. 22. 23,47	10,29	- 13,18
26. 7. 17. 9,6				2,82	75. 47. 44,53	29,08	- 15,45
Mar. 3. 7. 1. 7,2	5. 47. 13,98	16,24	+ 2,26	2,67	75. 6. 38,95	14,73	(- 24,22)

Feb. 12. The N.P.D. by observation has been increased 1'.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF ASTRÆA.

Oct. 27. 13. 3.25,0	3. 28. 51,12	59,09	+ 7,97	3,74	79. 58. 4,33	22,52	- 41,81
29. 12. 53.58,2	3. 27. 15,88	23,88	+ 8,00				
Nov. 5. 12. 20.23,9	3. 21. 11,89	19,32	+ 7,43				
6. 12. 15.32,2	3. 20. 16,00	24,18	+ 8,18	3,91	80. 44. 30,05	0,26	- 29,79
10. 11. 56. 3,4	3. 16. 30,18	38,57	+ 8,39	3,96	81. 2. 2,42	30,14	- 32,28
14. 11. 36.30,4	3. 12. 40,25	48,57	+ 8,32	3,99	81. 18. 17,49	48,41	- 29,08
16. 11. 26.43,7	3. 10. 45,00	53,47	+ 8,47	4,01	81. 25. 55,77	24,36	- 31,41
Dec. 6. 9. 51.15,2	2. 53. 51,97	59,47	+ 7,50	3,94	82. 11. 59,65	44,50	(- 15,15)
17. 9. 2.17,4	2. 48. 8,25	15,22	+ 6,97	3,78	82. 9. 29,45	2,01	- 27,44
27. 8. 20.48,4				3,58	81. 48. 44,60	20,09	- 24,51

Nov. 5. Possibly an error of 1' in the observation.

The object observed for Astræa with the Circle on Dec. 29 was not the Planet.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF NEPTUNE.

Greenwich Mean Solar Time of Transit.	R.A. from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Parallax.	Geocentric N.P.D. from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d. h. m. s.	h. m. s.	s.	s.	"	° ' "	"	"
July 27. 14. 2. 28,4	22. 25. 21,32	21,44	+ 0,12	0,26	100. 39. 9,51	12,44	+ 2,93
31. 13. 46. 23,7	22. 25. 0,24	0,26	+ 0,02	0,26	100. 41. 19,24	20,35	+ 1,11
Aug. 3. 13. 34. 19,4	22. 24. 43,62	43,75	+ 0,13	0,26	100. 42. 60,33	59,59	- 0,74
4. 13. 30. 17,9	22. 24. 37,95	38,14	+ 0,19	0,26	100. 43. 31,26	33,21	+ 1,95
8. 13. 14. 11,4	22. 24. 15,09	15,22	+ 0,13	0,26	100. 45. 49,19	50,15	+ 0,96
9. 13. 10. 9,6	22. 24. 9,15	9,37	+ 0,22	0,26	100. 46. 23,31	24,94	+ 1,63
13. 12. 54. 2,3				0,26	100. 48. 45,91	45,99	+ 0,08
15. 12. 45. 58,4	22. 23. 33,33	33,54	+ 0,21	0,26	100. 49. 55,53	57,45	+ 1,92
16. 12. 41. 56,4	22. 23. 27,24	27,46	+ 0,22	0,26	100. 50. 31,75	33,35	+ 1,60
17. 12. 37. 54,5				0,26	100. 51. 8,60	9,35	+ 0,75
18. 12. 33. 52,5				0,26	100. 51. 44,21	45,45	+ 1,24
27. 11. 57. 33,7				0,26	100. 57. 14,43	12,13	- 2,30
28. 11. 53. 31,4	22. 22. 12,88	13,23	+ 0,35				
Sept. 5. 11. 21. 15,2	22. 21. 23,84	23,83	- 0,01	0,26	101. 2. 33,83	34,97	+ 1,14
8. 11. 9. 9,5	22. 21. 5,82	5,61	- 0,21	0,26	101. 4. 20,08	20,05	- 0,03
11. 10. 57. 3,8	22. 20. 47,73	47,65	- 0,08	0,26	101. 6. 3,18	3,26	+ 0,08
12. 10. 53. 1,9	22. 20. 41,72	41,73	+ 0,01	0,26	101. 6. 37,71	37,19	- 0,52
17. 10. 32. 53,5	22. 20. 12,82	12,79	- 0,03	0,26	101. 9. 22,80	22,78	- 0,02
19. 10. 24. 50,4	22. 20. 1,51	1,55	+ 0,04	0,26	101. 10. 25,63	26,82	+ 1,19
25. 10. 0. 42,7	22. 19. 29,13	29,23	+ 0,10	0,26	101. 13. 30,62	30,13	- 0,49
26. 9. 56. 41,7	22. 19. 23,98	24,07	+ 0,09	0,26	101. 13. 58,66	59,28	+ 0,62
Oct. 2. 9. 32. 36,8	22. 18. 54,47	54,64	+ 0,17	0,26	101. 16. 43,84	44,75	+ 0,91
3. 9. 28. 36,4	22. 18. 49,94	50,02	+ 0,08	0,26	101. 17. 10,06	10,68	+ 0,62
8. 9. 8. 35,1	22. 18. 28,16	28,17	+ 0,01	0,26	101. 19. 12,33	12,63	+ 0,30
9. 9. 4. 34,9	22. 18. 23,87	24,07	+ 0,20	0,26	101. 19. 36,37	35,39	- 0,98
10. 9. 0. 35,1	22. 18. 19,97	20,06	+ 0,09	0,26	101. 19. 57,73	57,59	- 0,14
13. 8. 48. 36,4	22. 18. 8,90	8,61	- 0,29	0,26	101. 21. 0,38	0,76	+ 0,38
15. 8. 40. 37,1	22. 18. 1,45	1,48	+ 0,03	0,26	101. 21. 41,07	39,89	- 1,18
18. 8. 28. 39,6	22. 17. 51,56	51,58	+ 0,02	0,26	101. 22. 33,38	34,06	+ 0,68
19. 8. 24. 40,5	22. 17. 48,36	48,50	+ 0,14	0,26	101. 22. 51,79	50,85	- 0,94
26. 7. 56. 50,9	22. 17. 30,13	30,06	- 0,07	0,26	101. 24. 29,21	30,00	+ 0,79
27. 7. 52. 52,9	22. 17. 28,02	27,89	- 0,13	0,26	101. 24. 41,92	41,49	- 0,43
29. 7. 44. 57,0	22. 17. 23,86	23,91	+ 0,05	0,26	101. 25. 2,89	2,41	- 0,48
31. 7. 37. 1,5	22. 17. 20,24	20,40	+ 0,16	0,26	101. 25. 21,79	20,56	- 1,23
Nov. 2. 7. 29. 6,9	22. 17. 17,43	17,39	- 0,04	0,26	101. 25. 37,12	35,92	- 1,20
5. 7. 17. 15,7	22. 17. 13,90	13,80	- 0,10	0,26	101. 25. 53,77	53,56	- 0,21
6. 7. 13. 18,9	22. 17. 13,02	12,86	- 0,16	0,26	101. 25. 57,19	58,00	+ 0,81
10. 6. 57. 32,4	22. 17. 10,18	10,35	+ 0,17	0,26	101. 26. 7,99	8,55	+ 0,56
13. 6. 45. 44,3				0,26	101. 26. 9,70	8,77	- 0,93
14. 6. 41. 48,5	22. 17. 9,92	9,91	- 0,01	0,26	101. 26. 8,56	7,36	- 1,20
17. 6. 30. 1,8				0,26	101. 25. 56,65	58,65	+ 2,00
21. 6. 14. 21,6	22. 17. 14,38	14,15	- 0,23	0,26	101. 25. 34,14	36,63	+ 2,49
24. 6. 2. 37,7	22. 17. 18,22	17,93	- 0,29	0,26	101. 25. 14,35	12,35	- 2,00
28. 5. 47. 0,6	22. 17. 24,81	24,80	- 0,01	0,25	101. 24. 31,22	29,66	- 1,56
Dec. 1. 5. 35. 19,3	22. 17. 31,27	31,32	+ 0,05	0,25	101. 23. 46,41	50,03	+ 3,62
4. 5. 23. 39,3	22. 17. 38,99	38,98	- 0,01	0,25	101. 23. 4,78	3,94	- 0,84
6. 5. 15. 53,5	22. 17. 45,01	44,72	- 0,29	0,25	101. 22. 29,90	29,63	- 0,27
17. 4. 33. 18,6	22. 18. 25,23	25,12	- 0,11				

OCCULTATIONS
OF
FIXED STARS BY THE MOON,
WITH
THE EQUATIONS GIVEN BY THE CALCULATION
OF THE OCCULTATIONS.

1849.

COMPARISONS OF CLOCKS AND CHRONOMETERS USED IN THE CALCULATION
OF THE FOLLOWING OCCULTATIONS.

* * THE letter *H* is an abbreviation for Hardy, the Transit Clock; *G* for Graham, the Clock commonly used with the Five-feet Equatorial. *U* and *X* are Sidereal Chronometers, and *W* is a Solar Chronometer, each beating half-seconds.

Day of Comparison.	Clock.	Clock Time.	Chron.	Chronometer Time.	Day of Comparison.	Clock.	Clock Time.	Chron.	Chronometer Time.
1849.		<i>h. m. s.</i>		<i>h. m. s.</i>	1849.		<i>h. m. s.</i>		<i>h. m. s.</i>
Jan. 3	H.	0.31.40	X.	0.31.34,9	Sept. 8	H.	22.11.26,0	U.	22.9.39,9
Jan. 14	H.	7.53.57,0	X.	7.53.58,8		G.	22.28.17,0	W.	11.13.55,0
	H.	7.54.33,0	X.	7.54.34,7		H.	22.30.46,0	W.	11.18.5,5
Mar. 2	H.	10.18.51,0	X.	10.19.46,5		G.	22.43.58,0	W.	11.29.33,0
	H.	10.20.47,0	U.	10.21.20,5		H.	22.46.3,0	W.	11.33.20,0
Mar. 3	H.	8.4.13,0	U.	8.4.44,9		G.	22.52.42,0	W.	11.38.15,5
	H.	8.5.12,0	U.	8.5.44,0		H.	22.58.30,0	W.	11.45.45,0
Mar. 8	H.	12.24.33,0	W.	13.25.10,5		G.	23.31.30,0	W.	12.16.56,5
Mar. 28	H.	7.2.13,0	U.	7.1.17,5		G.	23.39.40,0	W.	12.25.5,0
Mar. 29	H.	8.5.25,0	X.	8.4.45,0		H.	23.41.52,0	W.	12.29.0,0
	H.	10.37.40,0	X.	10.36.59,8		G.	23.53.9,0	W.	12.38.31,4
Apr. 5	H.	8.57.21,0	U.	8.56.20,6		H.	23.56.47,0	W.	12.43.52,4
	H.	8.58.40,0	U.	8.57.39,7		H.	23.57.12,0	W.	12.44.17,3
May 7	H.	14.22.0,0	X.	14.20.35,8		G.	0.31.59,0	W.	13.17.14,5
	H.	15.44.16,0	U.	15.42.44,3		H.	0.37.8,0	W.	13.24.7,0
Sept. 5	H.	21.38.56,0	W.	10.38.15,0	Nov. 29	H.	0.24.6,0	U.	0.24.3,3
	H.	22.18.18,0	W.	11.17.30,5		H.	0.25.47,0	X.	0.25.55,0

Day of Observation 1849.	Phænomenon.	Moon's Limb.	Clock or Chronom.	Instrument.	Time by Clock or Chronometer.	Sidereal Time.	Greenwich Mean Solar Time.	Observer.
					<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>	
Jan. 3	(a) Disappearance of ξ^1 Ceti	Dark	X.	5-feet Equatorial	0.40.42,9	0.41.6,34	5.47.48,39	T.
14	(b) Disappearance of 38 Virginis	Bright	X.	5-feet Equatorial	7.43.35,0	7.44.23,92	12.6.41,62	B.
Mar. 2	(c) Disappearance of 130 Tauri	Dark	X.	46-inch Dollond	10.16.53,8	10.17.8,24	11.34.13,23	B.
3	(d) Disappearance of 26 Geminorum	Dark	U.	5-feet Equatorial	10.16.31,5	10.17.7,94	11.34.12,93	T.
8	(e) Disappearance of 82 Leonis	Bright	W.	5-feet Equatorial	8.0.22,7	8.1.1,19	9.14.32,57	T.
28	(f) Reappearance of γ Tauri	Bright	U.	5-feet Equatorial	13.19.34,7	12.29.9,14	13.13.18,54	C.
29	(g) Disappearance of 111 Tauri	Dark	X.	5-feet Equatorial	6.52.3,0	6.53.13,79	6.28.38,62	T.
...	(h) Reappearance of 117 Tauri	Dark	X.	5-feet Equatorial	7.56.41,5	7.57.36,62	7.28.54,99	B.
Apr. 5	(i) Reappearance of β Virginis	Bright	X.	5-feet Equatorial	10.31.39,0	10.32.34,31	10.3.27,30	T.
May 7	(k) Disappearance of η Libræ	Bright	U.	5-feet Equatorial	8.49.46,0	8.51.2,38	7.54.40,65	T.
...	(l) Reappearance of η Libræ	Bright	X.	5-feet Equatorial	14.16.44,0	14.18.28,51	11.15.24,12	B.
Sept. 5	(m) Disappearance of ν Piscium	Dark	U.	5-feet Equatorial	15.36.16,0	15.38.8,02	12.34.50,58	T.
...	(n) Reappearance of ν Piscium	Bright	W.	Northumb. Equat.	10.32.50,2	21.33.42,59	10.33.41,84	C.
8	(o) Disappearance of 71 Tauri	Dark	W.	Northumb. Equat.	11.12.0,3	22.12.59,21	11.12.52,02	C.
...	(p) Disappearance of θ^a Tauri	Dark	U.	5-feet Equatorial	21.58.34,0	22.0.34,20	10.48.41,33	T.
...	(q) Disappearance of θ^b Tauri	Bright	G.	5-feet Equatorial	22.25.21,3	22.23.53,22	11.11.56,53	C.
...	(r) Disappearance of 80 Tauri	Bright	G.	5-feet Equatorial	22.41.26,2	22.39.57,70	11.27.58,37	T.
...	(s) Reappearance of θ^a Tauri	Dark	G.	5-feet Equatorial	22.51.21,0	22.49.52,39	11.37.51,44	C.
...	(t) Disappearance of 81 Tauri	Bright	G.	5-feet Equatorial	22.54.28,8	22.53.0,20	11.40.58,74	T.
...	(u) Disappearance of 85 Tauri	Bright	G.	5-feet Equatorial	11.28.16,0	23.26.46,67	12.14.39,67	T.
...	(v) Reappearance of 80 Tauri	Dark	G.	5-feet Equatorial	23.36.43,8	23.35.14,31	12.23.5,93	T.
...	(w) Reappearance of 81 Tauri	Dark	G.	5-feet Equatorial	11.51.45,9	23.50.16,24	12.38.5,40	T.
...	(x) Reappearance of 85 Tauri	Dark	G.	5-feet Equatorial	0.28.34,0	0.27.3,55	13.14.46,69	T.
Nov. 29	(y) Disappearance of γ Tauri	Bright	U.	5-feet Equatorial	0.19.5,5	0.19.44,24	7.45.4,16	T.
			X.	Northumb. Equat.	0.19.21,7	0.19.49,74	7.45.9,65	B.

(a) 'The star disappeared instantaneously: no doubt of the time to the tenth of a second.'

(b) The occultation was watched for ten minutes, but the instant of disappearance was altogether uncertain, the star becoming very faint as it approached the Limb. 'The Moon was of a copper-colour and had a boiling motion.'

(c) Both observations considered to be very good.

(d) 'Very exact.'

(e) This occultation, which is not in the Nautical Almanac, took place near the South Limb during an eclipse of the Moon. The star was noted of Mag. 6, and found to be 82 Leonis. The instrument was not mentioned, but most probably it was the 5-feet Equatorial, the Northumberland Telescope being on the point of being used for observations of Flora. The observation was considered good.

(f) Probably observed too late, the 'Angle from Vertex' not according with that of the Nautical Almanac.

(g) Clouds passing made it doubtful whether the star was hid by the Moon at the time noted.

(h) Probably a few seconds late, the right point of the Limb not being looked at.

(i) 'Not a second late, the Moon's Limb being well defined and the right position looked at.'

(k) Doubtful to a few seconds, the Moon's Limb waving and the star being a very faint patch of light.

(l) The Moon nearly full and the star faint, but the observation was not doubtful.

(m) Considered exact. The seconds were counted by T.

(n) No uncertainty.

(o) Circumstances not noted.

(p) Star faint, but the observation not doubtful.

(q) 'The star appeared to dance on the Limb for two seconds.'

(r) Uncertain, the star being very faint.

(s) The observer had removed his eye from the Telescope for about two seconds and the time may therefore be in error to that amount.

(t) 'Star extremely faint: it appeared to rest on the Limb a few seconds.' (T). 'The Moon full, and misty clouds passing. Very exact observation, the star being kept in view till it appeared to touch the Limb.' (B).

In calculating the Greenwich Mean times of Sept. 8, the change of error of W in the interval between the observation and the comparisons is allowed for when necessary, its rate being inferred from the first and last comparisons of that day.

Disappearance of ξ^1 Ceti, Jan. 3, $5^h.47^m.48^s.39 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$10^{\circ}.16'.35''.10 + 15''.0411 \times t$
Moon's Geocentric Right Ascension in arc	$30.55.55.20 + 0,5745 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$81.25.27.88 - 0,1691 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.21,86 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter.....	$16.10,61 \times (1 + 0,001 n)$
Star's Right Ascension in arc.....	$31.15.7,50 + e''$
Star's N.P.D.	$81.51.57,30 + f$
Geocentric Colatitude of the Observatory	$37.58.20,37 + v$
Moon's apparent Right Ascension in arc.....	$31^{\circ}.9'.3,24 + \delta R$
Moon's apparent N.P.D.....	$82.7.2,87 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.22,16 + \delta S$
Apparent Distance of Star from Moon's centre	$16.14,76 + \delta D$

$$\delta R = +0,4279t + 0,5804\tau + 1,0101x - 0,0006y + 0,7960m + 0,0049v$$

$$\delta \lambda = -0,1787t - 0,1708\tau + 0,0005x + 1,0118y + 2,5249m - 0,0124v$$

$$\delta S = +0,0003t + 0,9822n$$

$$\delta D = -0,3664\delta R + 0,3664e + 0,9291\delta \lambda - 0,9290f.$$

Final Equation:

$$+7'',40 = -0,3697x + 0,9403y + 0,3664e - 0,9290f - 0,3231t - 0,3714\tau - 0,0133v + 2,0540m - 0,9822n.$$

Disappearance of 38 Virginis, Jan. 14, $12^h.6^m.41^s.62 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$116^{\circ}.5'.58''.80 + 15''.0411 \times t$
Moon's Geocentric Right Ascension in arc	$190.34.0,00 + 0,4889 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$91.59.33,47 + 0,1683 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$55.24,32 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$15.5,85 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$191.21.56,40 + e''$
Star's N.P.D.	$92.43.53,00 + f$
Geocentric Colatitude of the Observatory	$37.58.20,37 + v$
Moon's apparent Right Ascension in arc.....	$191^{\circ}.6'.52'',84 + \delta R$
Moon's apparent N.P.D.....	$92.43.31,12 + \delta \lambda$
Moon's apparent Semidiameter	$15.7,74 + \delta S$
Apparent Distance of Star from Moon's centre	$15.2,80 + \delta D$

$$\delta R = +0,4517t + 0,4902\tau + 1,0026x + 0,0003y + 1,9780m + 0,0123v$$

$$\delta \lambda = -0,1565t - 0,1634\tau - 0,0005x + 1,0020y + 2,6426m - 0,0097v$$

$$\delta S = +0,0006t + 0,9077n$$

$$\delta D = -0,9986\delta R + 0,9986e - 0,0243\delta \lambda + 0,0241f.$$

Final Equation:

$$+4'',94 = -1,0011x - 0,0247y + 0,9986e + 0,0241f - 0,4478t - 0,4855\tau - 0,0120v - 2,0395m - 0,9077n.$$

Disappearance of 130 Tauri, March 2, $11^h.34^m.12^s.93 + t + \tau$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$154.16.59,10 + 15,0411 \times t$
Moon's Geocentric Right Ascension in arc	$85.0.19,35 + 0,6175 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$71.46.36,49 - 0,0327 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.5,03 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$16.6,04 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$84.39.39,00 + e''$
Star's N.P.D.	$72.20.7,90 + f$
Geocentric Colatitude of the Observatory.....	$37.58.20,37 + v$
Moon's apparent Right Ascension in arc	$84.24.27,76 + \delta R$
Moon's apparent N.P.D.	$72.27.6,37 + \delta \lambda$
Moon's apparent Semidiameter	$16.13,49 + \delta S$
Apparent Distance of Star from Moon's centre .	$16.4,11 + \delta D$

$$\delta R = +0,5618t + 0,6197\tau + 1,0039x + 0,0035y - 2,1600m - 0,0134v$$

$$\delta \lambda = +0,0105t - 0,0348\tau - 0,0030x + 1,0076y + 2,4518m - 0,0116v$$

$$\delta S = -0,0007t + 0,9735n$$

$$\delta D = -0,8587\delta R + 0,8587e + 0,4346\delta \lambda - 0,4334f.$$

Final Equation:

$$+ 9'',38 = -0,8633x + 0,4350y + 0,8587e - 0,4334f - 0,4772t - 0,5473\tau + 0,0065v + 2,9204m - 0,9735n.$$

Disappearance of 26 Geminorum, Mar. 3, $9^h.14^m.32^s.57 + t + \tau$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$120.15.17,85 + 15,0411 \times t$
Moon's Geocentric Right Ascension in arc	$98.23.21,30 + 0,6164 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$71.32.15,76 + 0,0106 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$58.56,39 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$16.3,68 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$98.24.23,10 + e''$
Star's N.P.D.	$72.12.54,90 + f$
Geocentric Colatitude of the Observatory.....	$37.58.20,37 + v$
Moon's apparent Right Ascension in arc	$98.8.59,92 + \delta R$
Moon's apparent N.P.D.	$72.6.4,19 + \delta \lambda$
Moon's apparent Semidiameter	$16.16,85 + \delta S$
Apparent Distance of Star from Moon's centre .	$16.10,02 + \delta D$

$$\delta R = +0,4666t + 0,6228\tau + 1,0104x + 0,0014y - 0,8703m - 0,0054v$$

$$\delta \lambda = +0,0286t + 0,0100\tau - 0,0012x + 1,0136y + 2,0566m - 0,0140v$$

$$\delta S = -0,0003t + 0,9769n$$

$$\delta D = -0,8624\delta R + 0,8624e - 0,4228\delta \lambda + 0,4240f.$$

Final Equation:

$$+ 6'',83 = +0,8708x - 0,4297y + 0,8624e + 0,4240f - 0,4142t - 0,5414\tau + 0,0106v - 0,1190m - 0,9769n.$$

Disappearance of δ^2 Leonis, March 8, $13^h.13^m.18^s.54 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$185^\circ.2'.17''.10 + 15''.0411 \times t$
Moon's Geocentric Right Ascension in arc	$169.38.31,50 + 0,5235 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$84.54.28,89 + 0,1674 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$56.51,16 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$15.29,52 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$169.28.45,45 + e''$
Star's N.P.D.	$85.52.17,42 + f$
Geocentric Colatitude of the Observatory	$37.58.20,37 + \nu$
Moon's apparent Right Ascension in arc.....	$169.29.7,73 + \delta R$
Moon's apparent N.P.D.	$85.36.29,82 + \delta \lambda$
Moon's apparent Semidiameter.....	$15.39,69 + \delta S$
Apparent Distance of Star from Moon's centre .	$15.47,86 + \delta D$

$$\delta R = + 0,3793t + 0,5287\tau + 1,0099x + 0,0003y - 0,5694m - 0,0035\nu$$

$$\delta \lambda = + 0,1723t + 0,1692\tau - 0,0002x + 1,0109y + 2,5485m - 0,0112\nu$$

$$\delta S = - 0,0002t + 0,9397n$$

$$\delta D = + 0,0234\delta R - 0,0234e - 0,9998\delta \lambda + 0,9998f.$$

Final Equation :

$$- 8'',17 = + 0,0238x - 1,0106y - 0,0234e + 0,9998f - 0,1632t - 0,1568\tau + 0,0111\nu - 2,5612m - 0,9397n.$$

Reappearance of γ Tauri, March 28, $6^h.28^m.38^s.62 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$103^\circ.18'.26''.85 + 15''.0411 \times t$
Moon's Geocentric Right Ascension in arc.....	$63.29.32,10 + 0,6182 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$74.2.44,51 - 0,1005 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.43,64 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter.....	$16.16,56 \times (1 + 0,001 n)$
Star's Right Ascension in arc.....	$62.48.1,35 + e''$
Star's N.P.D.	$74.44.40,60 + f$
Geocentric Colatitude of the Observatory	$37.58.20,37 + \nu$
Moon's apparent Right Ascension in arc.....	$63.4.54'',25 + \delta R$
Moon's apparent N.P.D.....	$74.40.38,05 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.27,97 + \delta S$
Apparent Distance of Star from Moon's centre .	$16.46,71 + \delta D$

$$\delta R = + 0,4946t + 0,6233\tau + 1,0086x + 0,0021y - 1,4905m - 0,0093\nu$$

$$\delta \lambda = - 0,0751t - 0,1028\tau - 0,0018x + 1,0116y + 2,3014m - 0,0132\nu$$

$$\delta S = - 0,0005t + 0,9880n$$

$$\delta D = + 0,9362\delta R - 0,9362e - 0,2403\delta \lambda + 0,2416f.$$

Final Equation :

$$- 18'',74 = + 0,9447x - 0,2412y - 0,9362e + 0,2416f + 0,4816t + 0,6083\tau - 0,0055\nu - 1,9485m - 0,9880n.$$

Disappearance of 111 Tauri, March 29, $7^h.28^m.54^s.99 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$119.24.9''_{30} + 15''_{0411} \times t$
Moon's Geocentric Right Ascension in arc	$79.2.20,25 + 0,6237 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$72.7.18,11 - 0,0525 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.26,26 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$16.11,83 \times (1 + 0,001 n)$
Star's Right Ascension in arc.....	$78.54.13,20 + e''$
Star's N.P.D.	$72.45.50,00 + f$
Geocentric Colatitude of the Observatory	$37.58.20,37 + v$
Moon's apparent Right Ascension in arc.....	$78.37.17,52 + \delta R$
Moon's apparent N.P.D.....	$72.43.43,17 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.23,43 + \delta S$
Apparent Distance of Star from Moon's centre	$16.18,23 + \delta D$

$$\delta R = + 0,5007t + 0,6290\tau + 1,0085x + 0,0024y - 1,5156m - 0,0094v$$

$$\delta \lambda = - 0,0231t - 0,0544\tau - 0,0021x + 1,0119y + 2,2126m - 0,0134v$$

$$\delta S = - 0,0005t + 9,8343n$$

$$\delta D = - 0,9470\delta R + 0,9470e - 0,1289\delta \lambda + 0,1304f.$$

Final Equation :

$$+ 5'',20 = - 0,9548x - 0,13.7y + 0,9470e + 0,1304f - 0,4706t - 0,5886\tau + 0,0106v + 1,1499m - 9,8343n.$$

Reappearance of 117 Tauri, March 29, $10^h.3^m.27^s.30 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$158.8.34''_{65} + 15''_{0411} \times t$
Moon's Geocentric Right Ascension in arc	$80.38.44,25 + 0,6238 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$71.59.35,48 - 0,0473 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.24,08 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$16.11,25 \times (1 + 0,001 n)$
Star's Right Ascension in arc.....	$79.48.58,35 + e''$
Star's N.P.D.	$72.53.38,10 + f$
Geocentric Colatitude of the Observatory	$37.58.20,37 + v$
Moon's apparent Right Ascension in arc.....	$80.1.12''_{55} + \delta R$
Moon's apparent N.P.D.....	$72.41.54,86 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.17,37 + \delta S$
Apparent Distance of Star from Moon's centre	$16.33,20 + \delta D$

$$\delta R = + 0,5908t + 0,6251\tau + 1,0023x + 0,0036y - 2,2569m - 0,0140v$$

$$\delta \lambda = - 0,0028t - 0,0495\tau - 0,0031x + 1,0062y + 2,5588m - 0,0110v$$

$$\delta S = - 0,0007t + 0,9774n$$

$$\delta D = + 0,6745\delta R - 0,6745e - 0,7077\delta \lambda + 0,7084f.$$

Final Equation :

$$- 15'',83 = + 0,6783x - 0,7097y - 0,6745e + 0,7084f + 0,4012t + 0,4567\tau - 0,0017v - 3,3332m - 0,9774n.$$

Reappearance of β Virginis, April 5, $7^h.54^m.40^s.65 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$132.45.35.70 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc.....	$175.32.2.25 + 0.5082 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$86.48.55.76 + 0.1680 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$56.12.55 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$15.19.04 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$175.42.49.65 + e''$
Star's N.P.D.....	$87.23.15.10 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + \nu$
Moon's apparent Right Ascension in arc.....	$175.55.41.06 + \delta R$
Moon's apparent N.P.D.....	$87.32.1.11 + \delta \lambda$
Moon's apparent Semidiameter	$15.26.42 + \delta S$
Apparent Distance of Star from Moon's centre	$15.33.05 + \delta D$

$$\delta R = +0.4006t + 0.5119\tau + 1.0074x - 0.0004y + 1.4294m + 0.0089\nu$$

$$\delta \lambda = +0.1650t + 0.1695\tau + 0.0003x + 1.0080y + 2.6063m - 0.0105\nu$$

$$\delta S = +0.0005t + 0.9264n$$

$$\delta D = +0.8251\delta R - 0.8251e + 0.5638\delta \lambda - 0.5637f.$$

Final Equation :

$$-6''.63 = +0.8314x + 0.5680y - 0.8251e - 0.5637f + 0.4231t + 0.5179\tau + 0.0133\nu + 2.6489m - 0.9264n.$$

Disappearance of η Libræ, May 7, $11^h.15^m.24^s.12 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$214.37.7.65 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc.....	$233.30.10.95 + 0.5011 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$104.13.50.12 + 0.1071 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$54.11.34 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$14.45.99 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$233.54.21.30 + e''$
Star's N.P.D.	$105.11.13.60 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + \nu$
Moon's apparent Right Ascension in arc.....	$233.41.23.85 + \delta R$
Moon's apparent N.P.D.	$105.3.10.32 + \delta \lambda$
Moon's apparent Semidiameter.....	$14.51.09 + \delta S$
Apparent Distance of Star from Moon's centre	$14.52.67 + \delta D$

$$\delta R = +0.3626t + 0.5060\tau + 1.0095x + 0.0008y + 0.6793m + 0.0042\nu$$

$$\delta \lambda = +0.1197t + 0.1073\tau - 0.0008x + 1.0056y + 2.9769m - 0.0063\nu$$

$$\delta S = +0.0002t + 0.8911n$$

$$\delta D = -0.8117\delta R + 0.8117e - 0.5418\delta \lambda + 0.5410f.$$

Final Equation :

$$-1''.58 = -0.8190x - 0.5455y + 0.8117e + 0.5410f - 0.3594t - 0.4688\tau + 0.0000\nu - 2.1643m - 0.8911n.$$

Reappearance of η Libræ, May 7, $12^h.34^m.50^s.58 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$234.32.0'' + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$234.10.0,60 + 0,5016 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$104.22.17,30 + 0,1057 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$54.10,73 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$14.45,83 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$233.54.21,30 + e''$
Star's N.P.D.	$105.11.13,60 + f$
Geocentric Colatitude of the Observatory.....	$37.58.20,37 + v$
Moon's apparent Right Ascension in arc	$234.9.47,28 + \delta R$
Moon's apparent N.P.D.	$105.12.8,41 + \delta \lambda$
Moon's apparent Semidiameter	$14.51,35 + \delta S$
Apparent Distance of Star from Moon's centre .	$14.55,29 + \delta D$

$$\delta R = + 0,3549t + 0,5066\tau + 1,0101x - 0,0000y - 0,0135m - 0,0001v$$

$$\delta \lambda = + 0,1061t + 0,1064\tau + 0,0000x + 1,0061y + 3,0096m - 0,0061v$$

$$\delta S = - 0,0000t + 0,8914n$$

$$\delta D = + 0,9632\delta R - 0,9632e + 0,0606\delta \lambda - 0,0618f.$$

Final Equation:

$$- 3'',94 = + 0,9730x + 0,0610y - 0,9632e - 0,0618f + 0,3483t + 0,4944\tau - 0,0005v + 0,1695m - 0,8914n.$$

Disappearance of ν Piscium, Sept. 5, $10^h.33^m.41^s.84 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$323.25.38,85 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$22.49.15,60 + 0,5446 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$84.47.44,19 - 0,1783 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$58.9,03 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$15.50,80 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$23.24.17,85 + e''$
Star's N.P.D.	$85.16.30,70 + f$
Geocentric Colatitude of the Observatory.....	$37.58.20,37 + v$
Moon's apparent Right Ascension in arc	$23.20.16,78 + \delta R$
Moon's apparent N.P.D.	$85.31.56,16 + \delta \lambda$
Moon's apparent Semidiameter	$15.56,88 + \delta S$
Apparent Distance of Star from Moon's centre .	$15.56,15 + \delta D$

$$\delta R = + 0,4688t + 0,5476\tau + 1,0052x - 0,0008y + 1,8710m + 0,0116v$$

$$\delta \lambda = - 0,1896t - 0,1790\tau + 0,0007x + 1,0063y + 2,6695m - 0,0109v$$

$$\delta S = + 0,0006t + 0,9569n$$

$$\delta D = - 0,2505\delta R + 0,2505e + 0,9679\delta \lambda - 0,9679f.$$

Final Equation:

$$+ 0'',73 = - 0,2511x + 0,9743y + 0,2505e - 0,9679f - 0,3016t - 0,3104\tau - 0,0135v + 2,1152m - 0,9569n.$$

Reappearance of ν Piscium, Sept. 5, $11^h.12^m.52^s.02 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$333.14.48.15 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$23.10.35.85 + 0.5450 \times (t + \tau) + x$
Moon's Geocentric N.P.D.	$84.40.45.53 - 0.1780 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$58.9.70 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$15.50.98 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$23.24.17.85 + e$
Star's N.P.D.	$85.16.30.70 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc	$23.38.13.65 + \delta R$
Moon's apparent N.P.D.	$85.24.32.00 + \delta \lambda$
Moon's apparent Semidiameter	$15.58.44 + \delta S$
Apparent Distance of Star from Moon's centre	$16.2.08 + \delta D$

$$\delta R = +0.4480t + 0.5487\tau + 1.0067x - 0.0008y + 1.6690m + 0.0104v$$

$$\delta \lambda = -0.1888t - 0.1790\tau + 0.0007x + 1.0077y + 2.6475m - 0.0111v$$

$$\delta S = +0.0006t + 0.9584n$$

$$\delta D = +0.8630\delta R - 0.8630e + 0.5004\delta \lambda - 0.5001f.$$

Final Equation:

$$-3''.64 = +0.8691x + 0.5036y - 0.8630e - 0.5001f + 0.2916t + 0.3840\tau + 0.0034v + 2.7652m - 0.9584n.$$

Reappearance of γ Tauri, Sept. 8, $10^h.48^m.41^s.33 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$330.8.33.00 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$64.5.38.25 + 0.6007 \times (t + \tau) + x$
Moon's Geocentric N.P.D.	$74.1.37.96 - 0.1044 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.3.05 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$16.5.45 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$64.26.43.35 + e$
Star's N.P.D.	$74.43.47.90 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc	$64.43.13.74 + \delta R$
Moon's apparent N.P.D.	$74.47.9.86 + \delta \lambda$
Moon's apparent Semidiameter	$16.8.24 + \delta S$
Apparent Distance of Star from Moon's centre	$16.16.66 + \delta D$

$$\delta R = +0.6136t + 0.6005\tau + 0.9991x - 0.0031y + 2.2536m + 0.0140v$$

$$\delta \lambda = -0.1447t - 0.1030\tau + 0.0028x + 1.0028y + 2.7428m - 0.0099v$$

$$\delta S = +0.0007t + 0.9682n$$

$$\delta D = +0.9440\delta R - 0.9440e + 0.2074\delta \lambda - 0.2062f.$$

Final Equation:

$$-8''.42 = +0.9437x + 0.2050y - 0.9440e - 0.2062f + 0.5485t + 0.5455\tau + 0.0112v + 2.6963m - 0.9682n.$$

Disappearance of θ° Tauri, Sept. 8, $11^{\text{h}}.11^{\text{m}}.56^{\text{s}},53 + t^{\text{s}} + \tau^{\text{s}}$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$335^{\circ}.58'.18''.80 + 15''.0411 \times t$
Moon's Geocentric Right Ascension in arc	$64.19.36,45 + 0,6009 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$73.59.12,71 - 0,1038 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.3,23 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$16.5,50 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$65.1.13,05 + e''$
Star's N.P.D.	$74.28.8,60 + f$
Geocentric Colatitude of the Observatory	$37.58.20,37 + v$

Moon's apparent Right Ascension in arc.....	$64.57.19,38 + \delta R$
Moon's apparent N.P.D.	$74.43.48,26 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.9,26 + \delta S$
Apparent Distance of Star from Moon's centre .	$16.6,29 + \delta D$

$$\delta R = + 0,5987t + 0,6014\tau + 1,0002x - 0,0032y + 2,2635m + 0,0141v$$

$$\delta \lambda = - 0,1444t - 0,1025\tau + 0,0028x + 1,0038y + 2,6890m - 0,0103v$$

$$\delta S = + 0,0007t + 0,9693n$$

$$\delta D = - 0,2248\delta R + 0,2248e + 0,9725\delta \lambda - 0,9724f.$$

Final Equation :

$$+ 2'',97 = - 0,2221x + 0,9769y + 0,2248e - 0,9724f - 0,2758t - 0,2349\tau - 0,0132v + 2,1063m - 0,9693n.$$

Disappearance of θ° Tauri, Sept. 8, $11^{\text{h}}.27^{\text{m}}.58^{\text{s}},37 + t^{\text{s}} + \tau^{\text{s}}$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$339^{\circ}.59'.25''.50 + 15''.0411 \times t$
Moon's Geocentric Right Ascension in arc	$64.29.14,55 + 0,6012 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$73.57.33,09 - 0,1034 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.3,35 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter.....	$16.5,53 \times (1 + 0,001 n)$
Star's Right Ascension in arc.....	$65.23.34,95 + e''$
Star's N.P.D.	$74.41.49,10 + f$
Geocentric Colatitude of the Observatory	$37.58.20,37 + v$

Moon's apparent Right Ascension in arc.....	$65.6.50,03 + \delta R$
Moon's apparent N.P.D.	$74.41.29,59 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.9,96 + \delta S$
Apparent Distance of Star from Moon's centre .	$16.9,47 + \delta D$

$$\delta R = + 0,5882t + 0,6020\tau + 1,0009x - 0,0032y + 2,2577m + 0,0140v$$

$$\delta \lambda = - 0,1441t - 0,1021\tau + 0,0028x + 1,0045y + 2,6517m - 0,0105v$$

$$\delta S = + 0,0007t + 0,9700n$$

$$\delta D = - 0,9643\delta R + 0,9643e - 0,0195\delta \lambda + 0,0208f.$$

Final Equation :

$$+ 0'',49 = - 0,9653x - 0,0165y + 0,9643e + 0,0208f - 0,5651t - 0,5786\tau - 0,0133v - 2,2288m - 0,9700n.$$

Reappearance of θ^2 Tauri, Sept. 8, $11^h.37^m.51^s.44 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$342.28.5.85 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$64.35.11.10 + 0.6013 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$73.56.31.85 - 0.1031 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.3.43 \times [9.9990916] \times (1 + 0.001m)$
Moon's Geocentric Semidiameter	$16.5.55 \times (1 + 0.001n)$
Star's Right Ascension in arc.....	$65.1.13.05 + e''$
Star's N.P.D.	$74.28.8.60 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + \nu$
Moon's apparent Right Ascension in arc.....	$65.12.36.88 + \delta R$
Moon's apparent N.P.D.....	$74.40.4.28 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.10.40 + \delta S$
Apparent Distance of Star from Moon's centre	$16.12.99 + \delta D$

$$\delta R = +0.5817t + 0.6024\tau + 1.0014x - 0.0031y + 2.2490m + 0.0140\nu$$

$$\delta \lambda = -0.1438t - 0.1019\tau + 0.0028x + 1.0049y + 2.6286m - 0.0107\nu$$

$$\delta S = +0.0007t + 0.9704n$$

$$\delta D = +0.6531\delta R - 0.6531e + 0.7359\delta \lambda - 0.7353f.$$

Final Equation :

$$-2''.59 = +0.6560x + 0.7374y - 0.6531e - 0.7353f + 0.2734t + 0.3184\tau + 0.0013\nu + 3.4030m - 0.9704n.$$

Disappearance of $\delta 1$ Tauri, Sept. 8, $11^h.40^m.58^s.74 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$343.15.3.00 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$64.37.3.75 + 0.6013 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$73.56.12.55 - 0.1030 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.3.45 \times [9.9990916] \times (1 + 0.001m)$
Moon's Geocentric Semidiameter	$16.5.56 \times (1 + 0.001n)$
Star's Right Ascension in arc.....	$65.31.9.15 + e''$
Star's N.P.D.	$74.38.27.90 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + \nu$
Moon's apparent Right Ascension in arc.....	$65.14.25.65 + \delta R$
Moon's apparent N.P.D.....	$74.39.37.38 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.10.54 + \delta S$
Apparent Distance of Star from Moon's centre	$16.10.20 + \delta D$

$$\delta R = +0.5797t + 0.6026\tau + 1.0015x - 0.0031y + 2.2454m + 0.0140\nu$$

$$\delta \lambda = -0.1436t - 0.1019\tau + 0.0028x + 1.0051y + 2.6213m - 0.0107\nu$$

$$\delta S = +0.0007t + 0.9705n$$

$$\delta D = -0.9619\delta R + 0.9619e + 0.0723\delta \lambda - 0.0710f.$$

Final Equation :

$$+0''.34 = -0.9631x + 0.0756y + 0.9619e - 0.0710f - 0.5687t - 0.5870\tau - 0.0142\nu - 1.9704m - 0.9705n.$$

Disappearance of 85 Tauri, Sept. 8, 12^h. 14^m. 39^s. 67 + t^s + τ^s Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	351°. 41'. 40.05 + 15.0411 $\times t$
Moon's Geocentric Right Ascension in arc	64°. 57'. 19.50 + 0.6018 $\times (t + \tau) + x''$
Moon's Geocentric N.P.D.	73°. 52'. 45.34 - 0.1021 $\times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	59°. 3.71 $\times [9.9990916] \times (1 + 0.001m)$
Moon's Geocentric Semidiameter	16°. 5.63 $\times (1 + 0.001n)$
Star's Right Ascension in arc	65°. 49'. 8.70 + e''
Star's N.P.D.	74°. 28'. 38.80 + f
Geocentric Colatitude of the Observatory	37°. 58'. 20.37 + ν
Moon's apparent Right Ascension in arc	65°. 33'. 35.10 + δR
Moon's apparent N.P.D.	74°. 34'. 48.93 + $\delta \lambda$
Moon's apparent Semidiameter	16°. 11.99 + δS
Apparent Distance of Star from Moon's centre	16°. 12.93 + δD

$$\delta R = +0.5578t + 0.6040\tau + 1.0031x - 0.0031y + 2.1824m + 0.0136\nu$$

$$\delta \lambda = -0.1419t - 0.1011\tau + 0.0027x + 1.0065y + 2.5431m - 0.0113\nu$$

$$\delta S = +0.0007t + 0.9720n$$

$$\delta D = -0.8913\delta R + 0.8913e + 0.3810\delta \lambda - 0.3799f.$$

Final Equation:

$$-0''.94 = -0.8930x + 0.3862y + 0.8913e - 0.3799f - 0.5519t - 0.5768\tau - 0.0164\nu - 0.9763m - 0.9720n.$$

Reappearance of 80 Tauri, Sept. 8, 12^h. 23^m. 5^s. 93 + t^s + τ^s Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	353°. 48'. 34.65 + 15.0411 $\times t$
Moon's Geocentric Right Ascension in arc	65°. 2'. 24.00 + 0.6019 $\times (t + \tau) + x''$
Moon's Geocentric N.P.D.	73°. 51'. 53.72 - 0.1018 $\times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	59°. 3.78 $\times [9.9990916] \times (1 + 0.001m)$
Moon's Geocentric Semidiameter	16°. 5.65 $\times (1 + 0.001n)$
Star's Right Ascension in arc	65°. 23'. 34.95 + e''
Star's N.P.D.	74°. 41'. 49.10 + f
Geocentric Colatitude of the Observatory	37°. 58'. 20.37 + ν
Moon's apparent Right Ascension in arc	65°. 38'. 16.05 + δR
Moon's apparent N.P.D.	74°. 33'. 37.28 + $\delta \lambda$
Moon's apparent Semidiameter	16°. 12.35 + δS
Apparent Distance of Star from Moon's centre	16°. 21.67 + δD

$$\delta R = +0.5526t + 0.6043\tau + 1.0034x - 0.0030y + 2.1595m + 0.0134\nu$$

$$\delta \lambda = -0.1413t - 0.1009\tau + 0.0027x + 1.0069y + 2.5237m - 0.0114\nu$$

$$\delta S = +0.0007t + 0.9724n$$

$$\delta D = +0.8345\delta R - 0.8345e - 0.5005\delta \lambda + 0.5015f.$$

Final Equation:

$$-9''.32 = +0.8360x - 0.5065y - 0.8345e + 0.5015f + 0.5311t + 0.5548\tau + 0.0169\nu + 0.5390m - 0.9724n.$$

Reappearance of 81 Tauri, Sept 8, $12^h.38^m.5^s.40 + t + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$357.34.360 + 15,0411 \times t$
Moon's Geocentric Right Ascension in arc	$65.11.25,65 + 0,6021 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$73.50.22,32 - 0,1014 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.3,90 \times [9,9990916] \times (1 + 0,001m)$
Moon's Geocentric Semidiameter	$16.5,68 \times (1 + 0,001n)$
Star's Right Ascension in arc.....	$65.31.9,15 + e''$
Star's N.P.D.	$74.38.27,90 + f$
Geocentric Colatitude of the Observatory	$37.58.20,37 + v$
Moon's apparent Right Ascension in arc.....	$65.46.29,13 + \delta R$
Moon's apparent N.P.D.	$74.31.30,75 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.12,98 + \delta S$
Apparent Distance of Star from Moon's centre	$16.20,08 + \delta D$

$$\delta R = +0,5431t + 0,6049\tau + 1,0041x - 0,0030y + 2,1122m + 0,0131v$$

$$\delta \lambda = -0,1402t - 0,1006\tau + 0,0026x + 1,0075y + 2,4898m - 0,0116v$$

$$\delta S = +0,0007t + 0,9730n$$

$$\delta D = +0,8724\delta R - 0,8724e - 0,4251\delta \lambda + 0,4262f.$$

Final Equation :

$$-7'',10 = +0,8748x - 0,4309y - 0,8724e + 0,4262f + 0,5327t + 0,5704\tau + 0,0164v + 0,7842m - 0,9730n.$$

Reappearance of 85 Tauri, Sept. 8, $13^h.14^m.46^s.69 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$6.45.53,25 + 15,0411 \times t$
Moon's Geocentric Right Ascension in arc	$65.33.31,65 + 0,6026 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$73.46.40,20 - 0,1004 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.4,17 \times [9,9990916] \times (1 + 0,001m)$
Moon's Geocentric Semidiameter	$16.5,76 \times (1 + 0,001n)$
Star's Right Ascension in arc.....	$65.49.8,70 + e''$
Star's N.P.D.	$74.28.38,80 + f$
Geocentric Colatitude of the Observatory	$37.58.20,37 + v$
Moon's apparent Right Ascension in arc.....	$66.6.1,01 + \delta R$
Moon's apparent N.P.D.	$74.26.25,95 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.14,45 + \delta S$
Apparent Distance of Star from Moon's centre	$16.24,81 + \delta D$

$$\delta R = +0,5216t + 0,6062\tau + 1,0056x - 0,0028y + 1,9604m + 0,0122v$$

$$\delta \lambda = -0,1368t - 0,0998\tau + 0,0025x + 1,0090y + 2,4096m - 0,0121v$$

$$\delta S = +0,0006t + 0,9745n$$

$$\delta D = +0,9546\delta R - 0,9546e - 0,1343\delta \lambda + 0,1356f.$$

Final Equation :

$$-9'',86 = +0,9597x - 0,1382y - 0,9546e + 0,1356f + 0,5156t + 0,5921\tau + 0,0133v + 1,5478m - 0,9745n.$$

Disappearance of γ Tauri, Nov. 29, $7^h.45^m.9^s.65 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$4.57.26,10 + 15,0411 \times t$
Moon's Geocentric Right Ascension in arc	$61.59.26,10 + 0,6392 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$74.7.0,46 - 0,1229 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$60.51,61 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$16.35,06 \times (1 + 0,001 n)$
Star's Right Ascension in arc.....	$62.49.3,60 + e''$
Star's N.P.D.	$74.44.27,80 + f$
Geocentric Co-latitude of the Observatory	$37.58.20,37 + \nu$
Moon's apparent Right Ascension in arc.....	$62.32.13,77 + \delta R$
Moon's apparent N.P.D.....	$74.47.54,90 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.44,49 + \delta S$
Apparent Distance of Star from Moon's centre	$16.36,13 + \delta D$

$$\delta R = +0,5517t + 0,6434\tau + 1,0061x - 0,0027y + 1,9798m + 0,0123\nu$$

$$\delta \lambda = -0,1591t - 0,1225\tau + 0,0024x + 1,0094y + 2,4801m - 0,0126\nu$$

$$\delta S = +0,0007t + 1,0045n$$

$$\delta D = -0,9438\delta R + 0,9438e + 0,2085\delta \lambda - 0,2073f.$$

Final Equation:

$$+8'',36 = +0,9490x + 0,2131y + 0,9438e - 0,2073f - 0,5545t - 0,6328\tau - 0,0142\nu - 1,3513m - 1,0045n.$$

APPARENT RIGHT ASCENSIONS

OBSERVED WITH

THE TRANSIT

IN THE YEAR 1850.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.								h.	m.	s.	
Jan. 1	α Ceti.....	52,7	6,4	19,5	33,2	46,8	0,1	13,5	2.54.33,17	+0,7	+4,6	+3,2	33,56	-6,76	9,35	2.54.26,77	T.		
	Aldebaran.....	43,6	57,3	11,2	25,6	39,6	53,5	7,4	4.27.25,46				25,90	-6,19		4.27.19,70	T.		
	(a) Rigel.....	45,3	59,0	12,3	26,1	39,6	53,1	6,9	5.7.26,04				26,48	-5,94		5.7.20,54	T.		
	(a) β Tauri.....	9,1	24,4	39,4	55,1	10,5	25,7	41,0	5.16.55,03				55,52	-5,89		5.16.49,65	T.		
Jan. 4	H. C. 4843.....	3,2	17,4	31,5	46,1	0,5	14,6	28,9	2.28.46,03				46,51		9,25	2.29.7,59	T.		
	H. C. 4925.....	....	1,1	15,2	29,4	43,6	57,5	....	2.31.29,36				29,79			2.31.50,88	T.
	(b) * N.P.D. 73°. 55'	16,1	30,2	44,0	58,2	12,4	26,2	40,2	2.32.58,19				58,62			2.33.19,72	T.		
	H. C. 5099.....	19,8	33,5	47,6	1,9	16,0	30,0	43,9	2.37.1,81				2,25			2.37.23,38	T.		
	α Ceti.....	24,6	38,2	51,4	5,1	18,6	32,1	45,5	2.54.5,07				5,47	21,30		2.54.26,71	T.		
	(c) Aldebaran.....	15,4	29,4	43,3	57,6	11,7	25,6	39,7	4.26.57,53				57,96	21,74		4.27.19,80	T.		
	Rigel.....	17,1	30,9	44,2	58,1	11,6	25,2	38,7	5.6.57,97				58,41	22,12		5.7.20,50	T.		
	(c) α Orionis.....	....	14,1	....	41,2	54,7	8,2	21,8	5.46.41,12				41,51	22,37		5.47.3,86	T.
	Sirius.....	28,1	42,3	56,1	10,1	24,3	38,1	52,2	6.38.10,17				10,63	22,67		6.38.33,31	T.		
	β Lyrae.....	14,6	30,6	46,6	2,9	19,1	34,9	51,0	18.44.2,81				3,31	27,34	9,20	18.44.30,66	T.		
Jan. 5	\odot 1 L.....	13,2	27,9	42,5	57,4	11,9	26,4	41,0	19.2.57,19				57,65			19.3.25,12	T.		
	(d) \odot 2 L.....	....	....	3,4	18,4	33,3	47,7	2,4	19.5.18,42				18,88			19.5.46,37	T.
	(d)(c) γ Aquilæ.....	....	....	....	....	5,4	18,9	19.38.37,99				38,37	27,58				T.
	α Aquilæ.....	17,1	30,7	44,4	58,0	11,6	25,5	38,8	19.42.58,02				58,40	27,65		19.43.26,13	T.		
	α Aquarii.....	....	7,4	20,6	34,2	47,8	1,1	14,6	21.57.34,23				34,66	28,57		21.58.3,25	T.	
	α Pegasi.....	5,5	19,4	33,1	47,2	1,2	14,9	28,8	22.56.47,16				47,57	28,96		22.57.16,54	T.		
	α Arietis.....	29,3	43,9	58,3	13,2	27,9	42,4	56,9	1.58.13,13				13,53	30,15		1.58.43,65	T.		
	Bessel II. 261 ...	18,6	32,2	45,6	59,5	13,2	26,5	40,2	2.15.59,40				59,78			2.16.30,02	T.		
	Bessel II. 316 ...	13,6	27,1	40,5	54,5	8,3	21,8	35,4	2.18.54,46				54,84			2.19.25,10	T.		
	Bessel II. 412 ...	29,6	43,2	57,1	11,2	25,2	39,0	52,7	2.24.11,14				11,54			2.24.41,83	T.		
	Bessel II. 465 ...	38,6	52,4	6,4	20,4	34,1	47,9	1,6	2.27.20,20				20,61			2.27.50,92	T.		
	H. C. 4925.....	38,1	52,1	6,0	20,2	34,2	48,2	2,2	2.31.20,14				20,58			2.31.50,92	T.		
	Bessel II. 597 ...	1,8	15,7	29,5	43,3	57,2	11,3	25,1	2.33.43,41				43,82			2.34.14,17	T.		
	H. C. 5099.....	10,5	24,6	38,2	52,5	6,8	20,6	34,6	2.36.52,54				52,97			2.37.23,34	T.		
	Aldebaran.....	6,3	20,2	34,1	48,1	2,2	16,1	30,2	4.26.48,18				48,62	31,07		4.27.19,70	T.		
	Rigel.....	7,9	21,5	35,0	48,8	2,4	16,0	29,5	5.6.48,73				49,17	31,36		5.7.20,50	T.		
	α Orionis.....	51,3	4,8	18,2	32,0	45,5	59,1	12,4	5.46.31,90				32,29	31,59		5.47.3,88	T.		
	(a) Castor.....	42,0	57,8	13,5	29,5	45,4	1,2	17,2	7.24.29,52				30,01	32,21		7.25.2,22	T.		
Jan. 7	α Pegasi.....	47,2	1,1	14,8	28,8	42,9	56,6	10,5	22.56.28,85				29,26	47,25	9,12		T.		
	β Ceti.....	31,6	45,9	0,1	14,6	28,7	42,9	57,1	0.35.14,41				14,87	47,78			T.		
	(f) Sirius.....	40,2	53,9	7,9	22,2	36,1	50,2	4,1	6.38.22,08				22,54	10,77	-0,57	6.38.33,40	T.		
	Castor.....	3,1	19,1	34,5	50,7	6,9	22,6	38,4	7.24.50,75				51,24	11,00		7.25.2,08	T.		
	Procyon.....	36,0	49,4	2,8	16,5	30,2	43,5	57,1	7.31.16,50				16,89	10,78		7.31.27,73	T.		
Jan. 13	α Pegasi.....	....	40,4	54,5	8,4	22,6	36,2	50,1	22.57.8,43	-1,0		-0,8	8,84	7,61	-0,57		T.	
Jan. 17	(g) Aldebaran.....	29,8	43,8	58,1	11,9	26,2	40,1	54,1	4.27.12,00				12,41	7,21	1,39	4.27.19,63	B.		
	Rigel.....	32,1	45,8	58,9	13,0	26,8	40,1	53,8	5.7.12,93				13,24	7,24		5.7.20,50	B.		
	(c) α Orionis.....	15,5	28,9	42,7	56,0	9,8	23,3	36,8	5.46.56,14				56,55	7,33		5.47.3,84	B.		
Jan. 22	(h) δ 1 L.....	....	....	9,1	23,0	37,4	51,7	5,4	3.15.23,20			+4,2	23,46		1,40	3.15.37,55	B.
	(c) ϵ Hydræ.....	....	....	22,2	....	49,7	3,0	16,5	8.38.35,91				36,30	14,40			B.
Jan. 23	λ Tauri.....	25,8	39,5	53,1	7,1	21,0	34,4	48,2	3.52.7,02				7,42		1,40	3.52.22,96	B.		
	Λ^1 Tauri.....	51,1	5,8	20,0	34,8	49,2	3,8	18,0	3.55.34,67				35,05			3.55.50,59	B.		
	δ 1-L.....	46,9	1,1	15,6	30,0	44,6	58,9	13,1	4.14.30,02				30,40			4.14.45,96	B.		
	δ Tauri.....	....	....	38,1	52,7	7,3	21,8	35,9	4.53.52,72				53,10			4.54.8,75	B.
	Rigel.....	23,8	37,4	50,8	4,4	18,2	31,8	45,4	5.7.4,54				4,93	15,60			B.		
	β Tauri.....	....	3,0	18,2	33,3	49,0	4,1	19,2	5.16.33,48				33,84	15,71			B.	
	(c) δ Ursæ Min. SP.	....	40,2	24,5	....	1,7	46,5	....	6.20.13,51				10,67				B.
Jan. 25	(c) Aldebaran.....	....	32,8	46,8	0,8	15,1	28,8	42,8	4.27.0,85				1,23	18,31	1,43		B.	

ILLUMINATION WEST. From Jan. 13, ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,337, -26°,913, -13°,618, +0°,060, +13°,573, +26°,892, +40°,344. From Jan. 13, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

(a) Scarcely visible from clouds. (b) The N.P.D. may not be exact to a minute. (c) Cloudy. (d) Corrected by -1°, the counting being found 1° in advance. (e) Unsteady. This observation at only two wires was inadvertently used in the calculation of clock-error. (f) Before this observation Hardy was stopped to diminish the rate. (g) Jan. 15, 0^h, Hardy was again stopped to give it a losing rate. (h) Almost hid by clouds.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"				h. m. s.	h. m. s.	h. m. s.	
Jan. 25	(a) β Tauri.....	39,8	0,1	15,2	30,8	46,3	1,4	16,5	5. 16. 30,73	-1,0	+4,2	-0,8	31,09	18,44	1,43	5. 28. 41,65			B.
	ζ Tauri.....	39,8	54,1	8,2	22,8	37,2	51,8	6,0	5. 28. 22,84				23,22						B.
Jan. 26	(a) α Ceti.....				6,2	20,1	33,4		2. 54. 6,38				6,77	19,74	1,41	2. 54. 26,49			B.
	Sirius.....	30,9	45,2	58,8	12,9	27,2	41,2	55,2	6. 38. 13,06				13,32	20,01		6. 38. 33,26			B.
	ζ Geminorum....	9,9	24,2	38,8	53,2	7,8	21,9	36,3	6. 54. 53,15				53,53			6. 55. 13,49			B.
	δ Geminorum. <i>nf.</i>	6,8	21,2	35,7	50,3	5,0	19,2	33,9	7. 10. 50,30				50,67			7. 11. 10,64			B.
	Castor.....	54,6	10,2	26,1	42,2	58,1	14,1	29,8	7. 24. 42,15				42,51	19,89		7. 25. 2,50			B.
	γ 1 L.....	3,0	17,9	32,2	46,9	1,9	16,4	31,1	7. 29. 47,06				47,44			7. 30. 7,43			B.
	Pollux.....			33,0	48,2	3,9	19,2	34,2	7. 35. 48,41				48,77	20,03		7. 36. 8,77			B.
	(a) ϕ Geminorum...	13,9		44,0	59,1	14,3	29,5	44,8	7. 43. 59,23				59,58			7. 44. 19,58			B.
	ϵ Hydræ.....	49,7	3,2	16,6	30,2	44,1	57,1	10,8	8. 38. 30,24				30,63	20,11		8. 38. 50,69			B.
	Regulus.....	21,8	35,6	49,1	3,1	17,1	30,8	44,3	10. 0. 3,11				3,51	20,01		10. 0. 23,65			B.
Jan. 29	α Arietis.....	35,9	50,1	4,8	19,5	54,1	48,7	3,3	1. 58. 19,49			-0,3	19,88	23,45	1,23				B.
	(b) α Ceti.....		35,7	49,1	2,4	16,2	29,4		2. 54. 2,56				2,97	23,50					B.
	(c) α Aquilæ.....			47,8	1,4	15,2	28,8	42,2	19. 43. 1,49				1,91	24,39	1,16	19. 43. 26,28			B.
Jan. 30	(b) \odot 1 L.....	50,8	4,7	18,6	33,1	47,2	1,4	15,8	20. 49. 33,08				33,37			20. 49. 57,79			B.
	(a) \odot 2 L.....			35,5	49,8	4,1			20. 51. 49,79				50,08			20. 52. 14,51			B.
	Polaris.....		10,5	46,0	25,0	14,5	46,2		1. 4. 28,39				34,68						B.
	α Ceti.....	20,9	34,3	47,8	1,2	14,9	28,2	41,8	2. 54. 1,30				1,71	24,74		2. 54. 26,43			B.
	ϕ Tauri.....			28,1	43,3	58,6	13,8	28,8	4. 10. 43,47				43,85			4. 11. 8,63			B.
	B.A.C. 1342.....			54,2	8,8	23,5	37,8	52,0	4. 13. 8,91				9,31			4. 13. 34,09			B.
	71 Tauri.....	41,8	55,9	9,4	23,2	37,6	51,3	5,1	4. 17. 23,47				23,87			4. 17. 48,66			B.
	B.A.C. 1391.....	52,1	6,0	19,9	33,9	48,1	2,0	16,0	4. 21. 34,00				34,40			4. 21. 59,19			B.
	B.A.C. 1406.....	56,8	10,8	24,3	38,8	53,0	6,8	20,7	4. 24. 38,75				39,15			4. 25. 3,94			B.
	Aldebaran.....	12,2	26,2	40,1	54,1	8,4	22,2	36,2	4. 26. 54,20				54,60	24,88		4. 27. 19,39			B.
	Rigel.....	14,6	28,0	41,5	55,2	9,2	22,3	35,8	5. 6. 55,23				55,55	24,82		5. 7. 20,38			B.
	α Orionis.....				38,8	52,3	5,7	19,3	5. 46. 38,67				39,09	24,72		5. 47. 3,95			B.
	Sirius.....	26,2	40,1	53,8	8,1	22,2	36,0	50,2	6. 38. 8,09				8,38	24,92		6. 38. 33,28			B.
Feb. 1	(b) Aldebaran.....	10,3	24,4	38,1	52,2	6,7	20,5	34,5	4. 26. 52,38			+3,9	52,77	26,69	1,12	4. 27. 19,65			B.
	Castor.....	47,2	3,1	19,1	34,9	51,0	6,9	22,9	7. 24. 35,01				35,36	27,05		7. 25. 2,38			B.
	Pollux.....	55,1	10,8	25,9	41,2	56,8	12,1	27,2	7. 35. 41,30				41,66	27,16		7. 36. 8,68			B.
Feb. 3	γ 2 L.....					44,3	58,1	12,2	15. 6. 29,79			-2,2	29,97		1,28	15. 6. 59,80			B.
	(d) β Lyrae.....						33,1	49,0	18. 44. 0,87				1,17	29,96		18. 44. 31,19			B.
Feb. 4	\odot 1 L.....	5,9	19,8	33,8	47,8	2,2	16,0	30,1	21. 9. 47,95				48,12			21. 10. 18,27			B.
	\odot 2 L.....	21,4	35,4	49,3	3,6	17,8	31,9	45,8	21. 12. 3,60				3,77			21. 12. 33,92			B.
	α Arietis.....	28,8	43,1	57,8	12,4	27,3	41,9	56,1	1. 58. 12,48				12,78	30,46		1. 58. 43,18			B.
	(a)(c) β Tauri.....			3,1	18,6	34,1	49,1	4,3	5. 16. 18,54				18,84	30,58		5. 16. 49,42			B.
	(a) B.A.C. 1733.....	30,9	45,0	59,0	13,8	28,1	42,6		5. 24. 13,74				14,05			5. 24. 44,64			B.
	(a) B.A.C. 1754.....	31,8		1,1		32,0	47,0	2,0	5. 27. 16,74				17,04			5. 27. 47,63			B.
Feb. 5	\odot 1 L.....	6,7	20,4	34,1	48,1	2,4	16,1	30,2	21. 13. 48,29				48,45		1,02	21. 14. 19,98			B.
	\odot 2 L.....	21,1	35,2	49,1	3,1	17,4	31,3	45,3	21. 16. 3,21				3,37			21. 16. 34,90			B.
	(a) α Pegasi.....				44,3		12,2	26,1	22. 56. 44,42				44,73	31,58					B.
Feb. 6	(f) \odot 1 L.....			34,1	48,5	2,4	16,2	30,5	21. 17. 48,34				48,50		0,69	21. 18. 20,72			B.
	\odot 2 L.....	21,3	35,3	49,2	3,1	17,8			21. 20. 3,34				3,50			21. 20. 35,72			B.
	(a) Polaris.....				11,4	1,5		14,0	1. 4. 15,36				23,91						B.
	(a) H. C. 6050.....	29,8	43,8	57,8	12,0	26,1	40,0	54,1	3. 8. 11,94				12,25			3. 8. 44,64			B.
	(a) H. C. 7116.....		11,2	25,7	40,1	55,1	9,3		3. 42. 40,28				40,58			3. 43. 12,99			B.
	H. C. 7196.....	51,1	6,0	20,5	35,3	50,4	5,1	20,0	3. 45. 35,49				35,79			3. 46. 8,20			B.
	H. C. 7325.....	52,0	6,8	21,0	35,9	50,6	5,0	19,7	3. 49. 35,86				36,16			3. 50. 8,57			B.
	H. C. 7434.....	8,7	23,0	37,2	52,0	6,9	21,0	35,6	3. 52. 52,03				52,35			3. 53. 24,76			B.
	H. C. 7528.....	2,0	16,8	31,0	46,0	0,8	15,1	30,0	3. 55. 45,96				46,26			3. 56. 18,67			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',344, -26',892, -13',573, -0',060, +13',618, +26',913, +40',337.

(a) Cloudy. (b) Faint from cloud. (c) Unsteady. (d) Cloud. This observation was inadvertently used for clock-error. (e) After rain.
(f) Clouds drifting, and the clock almost inaudible from a heavy gale.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.																		
		1	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.																							
		s.	s.	s.	s.	s.	s.	s.		"	"	"																							
Feb. 6	(a) Aldebaran.....	4,7	18,8	....	46,7	0,9	14,8	28,7	4.26.46,75	-1,0	+3,9	-2,2	47,06	32,32	0,69	4.27.19,49	B.																	
	Rigel.....	6,8	20,6	34,0	47,7	1,4	14,9	28,4	5.6.47,69				47,89	32,39		5.7.20,34		B.																	
	β Tauri.....	46,1	1,2	16,3	32,1	47,2	5.16.16,58				16,88	32,52		5.16.49,33			B.																
	(b) 118 Tauri. <i>nf</i> ...	46,1	1,0	15,8	30,6	45,8	0,1	15,0	5.19.30,63				30,93	5.20.3,38		B.																			
	(a) H. C. 10348.....	3,8	18,5	34,0	49,7	5.22.34,04				34,34	5.23.6,79						B.															
	δ Ursæ Min. SP.	....	27,0	11,5	1,0	....	34,8	....	6.20.0,76				57,13	B.																		
	ϵ Hydræ.....	37,2	50,8	4,0	17,9	31,7	45,0	58,4	8.38.17,86				18,17								32,63	8.38.50,72	B.												
	α Aquilæ.....	12,7	26,0	39,8	53,1	7,0	20,4	34,0	19.42.53,28				53,60								32,83	0,76		19.43.26,41	B.										
Feb. 7	\odot 1 L.....	6,1	20,1	34,0	48,0	....	16,0	30,1	21.21.48,08				48,24		21.22.21,11	B.																		
	\odot 2 L.....	21,1	35,1	49,0	3,1	17,2	31,0	45,1	21.24.3,08				3,24		21.24.36,11		B.																		
	B.A.C. 1064.....	14,0	28,2	42,2	56,6	11,0	24,9	39,1	3.17.56,57				56,88		3.18.29,93			B.																	
	B.A.C. 1079.....	59,8	13,8	27,6	41,7	55,8	9,8	23,8	3.20.41,75				42,06		3.21.15,12				B.																
	H. C. 6666.....	17,9	32,0	46,1	0,8	15,1	29,1	43,1	3.29.0,58				0,89		3.29.33,95					B.															
	Bessel III. 626...	56,7	10,1	23,9	37,8	51,8	5,3	19,0	3.32.37,80				38,11		3.33.11,17						B.														
	H. C. 7904.....	7,0	21,7	36,0	51,0	6,0	20,3	35,0	4.5.51,00				51,30		4.6.24,38							B.													
	H. C. 8031.....	44,6	58,8	12,7	26,8	41,1	55,0	9,1	4.9.26,87				27,18		4.10.0,26								B.												
	Aldebaran.....	4,0	18,1	31,8	45,9	0,2	13,9	27,9	4.26.45,97				46,28		33,08									4.27.19,37	B.										
	H. C. 8730.....	58,4	13,0	27,3	42,0	56,8	11,1	25,7	4.29.42,04				42,34		4.30.15,43									B.											
	β Tauri.....	30,1	45,1	0,8	16,0	31,6	46,5	2,0	5.16.16,02				16,32		33,06											5.16.49,44	B.								
	(c) α Orionis.....	49,8	3,1	16,8	30,2	43,9	57,3	11,1	5.46.30,31				30,62		33,11											5.47.3,75		B.							
	Sirius.....	17,7	31,8	45,7	59,7	14,0	28,0	42,0	6.37.59,85				0,01		33,22											6.38.33,17			B.						
	Castor.....	41,1	56,9	12,8	28,9	45,0	0,8	16,8	7.24.28,90				29,19		33,20											7.25.2,37				B.					
	Procyon.....	13,8	27,1	40,8	54,1	8,0	21,4	34,9	7.30.54,30				54,62		33,18											7.31.27,81					B.				
	ϵ Hydræ.....	36,8	50,1	3,7	17,1	30,8	44,5	57,9	8.38.17,27				17,58		33,19											8.38.50,80						B.			
Feb. 9	Aldebaran.....	....	16,1	29,9	44,1	58,1	12,1	....	4.26.44,06				44,37	34,96	0,94	4.27.19,31	B.																
	Rigel.....	4,2	17,9	31,1	45,1	59,0	12,2	25,9	5.6.45,06				45,26	34,97		5.7.20,23		B.																	
	α Orionis.....	47,8	1,2	14,8	28,2	42,1	55,6	9,1	5.46.28,40				28,71	35,00		5.47.3,71			B.																
Feb. 11	Sirius.....	13,8	27,9	41,8	55,7	10,2	24,1	38,1	6.37.55,94		+3,8	-1,4	56,15	37,04	0,90	6.38.33,13	B.																		
	Castor.....	37,1	53,3	9,1	25,0	41,1	56,9	13,0	7.24.25,07				25,38	36,99		7.25.2,39		B.																	
	ϵ Hydræ.....	32,9	46,3	59,9	13,4	27,1	40,6	54,1	8.38.13,47				13,82	37,00		8.38.50,87			B.																
Feb. 12	Aldebaran.....	....	13,1	27,1	41,0	55,4	9,3	23,2	4.26.41,18				41,52	37,77	0,81	4.27.19,28	B.																	
	(d) B.A.C. 1468.....	11,1	25,1	39,4	53,8	8,1	22,1	36,2	4.36.53,69				54,03			4.37.31,80		B.																	
	H. C. 9028.....	27,9	42,1	56,8	11,1	25,9	40,1	54,5	4.40.11,20				11,53			4.40.49,30			B.																
	(e) H. C. 9159.....	46,1	0,8	15,1	30,0	44,7	59,0	13,9	4.44.29,94				30,27			4.45.8,04				B.															
	(a) H. C. 9786.....	54,0	22,7	37,3	52,6	22,2	5.4.37,76				38,07			5.5.15,85					B.														
	(f) Rigel.....	1,4	15,1	28,3	42,2	56,0	9,3	23,0	5.6.42,18				42,43			37,76						5.7.20,21	B.												
	n Tauri.....	55,0	9,3	23,7	38,1	53,1	7,4	22,0	5.9.38,37				38,70			5.10.16,48						B.													
	(g) β Tauri.....	25,2	40,8	55,8	11,1	26,7	41,7	57,0	5.16.11,18				11,50			37,81								5.16.49,29	B.										
	α Aquilæ.....	1,4	15,1	28,8	19.42.47,85				48,20			38,33								0,80		19.43.26,43	B.								
Feb. 13	(h) \odot 1 L.....	45,7	59,5	13,0	27,0	41,1	54,8	8,8	21.45.27,13				27,35		21.46.5,65	B.																			
	\odot 2 L.....	59,1	13,0	27,0	40,8	54,8	8,7	22,2	21.47.40,80				41,02		21.48.19,32		B.																		
	Polaris.....	46,0	19,5	48,5	2,0	1.4.3,46				10,59					B.																	
	α Arietis.....	20,7	35,1	49,9	4,3	19,1	33,7	48,1	1.58.4,41				4,74		38,35				1.58.43,18	B.															
	H. C. 9195.....	48,3	2,9	16,9	31,0	45,4	59,8	14,0	4.45.31,18				31,51		4.46.10,04				B.																
	99 Tauri.....	35,1	49,5	4,6	19,2	34,0	4.48.4,48				4,80		4.48.43,83						B.														
	β Tauri.....	24,5	39,9	55,0	10,2	26,0	41,1	56,1	5.16.10,40				10,72		38,57							5.16.49,27	B.												
	H. C. 10229.....	25,0	38,8	52,8	6,8	21,0	35,0	49,0	5.19.6,92				7,26		5.19.45,81							B.													
	H. C. 10633.....	50,9	6,0	21,0	36,2	51,9	6,7	22,0	5.30.36,39				36,71		5.31.15,26									B.											
	128 Tauri.....	54,7	8,5	22,4	36,5	50,9	4,8	18,8	5.35.36,66				37,00		5.36.15,56										B.										
	H. C. 10971.....	24,8	38,8	52,8	7,0	21,1	35,1	49,1	5.39.6,96				7,30		5.39.45,86											B.									
	α Orionis.....	44,0	57,5	11,1	24,6	38,5	52,0	5,4	5.46.24,73				25,08		38,58												5.47.3,64	B.							
	Sirius.....	26,1	40,1	54,1	8,8	22,3	6.37.54,28				54,49		38,67												6.38.33,08		B.						
	Castor.....	35,9	51,9	7,4	23,1	39,2	55,1	11,2	7.24.23,40				23,71		38,64												7.25.2,33			B.					
	Procyon.....	35,2	49,0	2,7	16,0	29,5	7.30.48,97				49,32		38,45												7.31.27,94				B.				

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^{\circ}344$, $-26^{\circ}892$, $-13^{\circ}573$, $-0^{\circ}060$, $+13^{\circ}618$, $+26^{\circ}913$, $+40^{\circ}337$.

(a) Cloudy. (b) Clouds passing. (c) Faint from cloud. (d) A star of Mag. 8 and less N.P.D. precedes II*. (e) Many stars of equal magnitude in the field. (f) Flaring. (g) Cloudy at the last wires. (h) The noted times were 20^s greater.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"		s.	s.	s.	m.	s.	
Feb. 13	ε Hydræ.....	31,1	44,5	58,1	12,0	25,6	39,0	52,5	8.38.11,83	-1,0	+3,8	-1,4	12,18	38,64	0,80	8.38.50,84			B.
Feb. 15	(a) ☉ 1 L.....	32,7	46,6	0,0	14,0	28,1	41,8	55,6	21.53.14,11				14,34		1,01	21.53.54,51			B.
	☉ 2 L.....	45,9	59,6	13,2	27,0	41,0	55,0	8,9	21.55.27,23				27,46			21.56.7,63			B.
Feb. 16	☉ 1 L.....	24,7	38,5	52,2	5,9	20,0	33,7	47,5	21.57.6,07		+4,3	-2,2	6,26			21.57.47,44			B.
	(b) ☉ 2 L.....	38,0	51,8	5,1	19,0	33,0	46,9	0,7	21.59.19,22				19,41			22.0.0,60			B.
	(c) ☉ 1 L.....	....	....	....	8,8	23,0	36,3	50,1	1.11.8,84				9,16			1.11.50,48			B.
	α Arietis.....	....	....	46,9	1,4	16,0	30,8	45,1	1.58.1,46				1,79	41,25		1.58.43,14			B.
	(d) Procyon.....	5,3	19,0	32,1	45,8	59,2	12,8	26,4	7.30.45,80				46,13	41,62		7.31.27,72			B.
	Pollux.....	....	....	11,5	26,9	42,2	57,3	12,9	7.35.26,87				27,19	41,57		7.36.8,78			B.
	ε Hydræ.....	28,1	41,8	55,0	8,8	22,2	36,0	49,2	8.38.8,73				9,06	41,75		8.38.50,69			B.
	α Hydræ.....	51,5	5,1	18,8	32,0	46,0	59,2	13,1	9.19.32,24				32,46	41,65		9.20.14,12			B.
	δ Leonis.....	43,0	57,4	12,0	26,2	41,0	55,2	9,7	11.5.26,36				26,69	41,72		11.6.8,43			B.
Feb. 18	(e) ☉ 1 L.....	7,0	20,9	34,2	48,1	2,2	16,0	29,8	22.4.48,32				48,52		0,98	22.5.31,76			B.
	☉ 2 L.....	19,1	33,3	47,0	0,9	15,0	28,4	42,2	22.7.0,84				1,04			22.7.44,28			B.
	α Ceti.....	....	....	29,1	42,1	56,0	9,4	22,9	2.53.42,43				42,75	43,40		2.54.26,19			B.
	☉ 1 L.....	22,8	36,8	50,8	4,9	19,0	33,0	47,0	2.56.4,90				5,24			2.56.48,68			B.
	ξ Tauri.....	....	51,4	5,0	18,8	32,4	45,9	....	3.18.18,70				19,03			3.19.2,48			B.
	ε Tauri.....	38,1	51,8	5,2	19,1	32,9	46,4	0,1	3.39.19,09				19,43			3.40.2,90			B.
	H. C. 7967.....	51,0	4,9	18,9	32,9	47,1	1,0	15,0	4.7.32,97				33,31			4.8.16,80			B.
	H. C. 8066.....	....	....	5,2	20,0	35,0	49,1	4,0	4.10.20,03				20,35			4.11.3,84			B.
	B.A.C. 1373.....	....	54,5	8,8	23,2	38,0	52,1	....	4.18.23,32				23,65			4.19.7,15			B.
	(f) * N.P.D. 74°.8'	6,0	19,8	33,7	47,8	2,0	15,8	29,8	4.20.47,84				48,17			4.21.31,67			B.
	α Orionis.....	39,0	52,7	6,0	19,8	33,7	47,0	0,5	5.46.19,82				20,15	43,44		5.47.3,71			B.
	H. C. 11276.....	40,9	55,1	9,2	23,7	38,0	52,0	6,1	5.49.23,57				23,91			5.50.7,47			B.
	(g) H. C. 11358.....	....	....	24,2	39,2	54,0	8,7	23,1	5.51.39,16				39,49			5.52.23,05			B.
	H. C. 11482.....	40,1	54,4	9,0	23,4	38,1	52,3	6,9	5.55.23,46				23,79			5.56.7,35			B.
	H. C. 11589.....	....	....	57,8	12,3	27,3	42,0	56,8	5.58.12,54				12,87			5.58.56,43			B.
	δ Ursæ Min. SP.	....	19,5	2,5	....	....	25,5	12,0	6.19.52,43				48,46						B.
	Sirius.....	7,2	21,1	35,2	49,2	3,3	17,2	31,2	6.37.49,20				49,37	43,73		6.38.32,96			B.
	(h) Castor.....	31,0	46,7	2,3	18,3	34,3	50,1	6,0	7.24.18,39				18,72	43,59		7.25.2,34			B.
	Procyon.....	3,2	16,8	30,0	43,8	57,4	11,0	24,1	7.30.43,76				44,08	43,65		7.31.27,71			B.
	Pollux.....	....	54,0	9,3	24,9	40,2	55,2	....	7.35.24,72				25,04	43,70		7.36.8,67			B.
Feb. 19	(e)(i) ☉ 1 L.....	....	....	....	38,2	52,3	6,0	19,7	22.8.38,39				38,59		0,94	22.9.22,61			B.
	☉ 2 L.....	9,4	23,1	37,0	50,8	4,9	18,1	32,0	22.10.50,75				50,95			22.11.34,97			B.
	(h)(k) α Andromedæ..	7,2	....	....	....	....	23,3	....	23.59.52,87				53,19	44,28					B.
	(h)(i) ☉ 1 L.....	36,0	50,1	4,3	19,0	33,1	47,2	1,6	3.52.18,76				19,09			3.53.3,33			B.
	(h) α Hydræ.....	....	2,8	....	29,8	....	56,3	....	9.19.29,64				29,86	44,26					B.
Feb. 20	(i)(l) ε Tauri.....	23,8	37,9	51,9	6,0	20,8	34,6	48,8	4.19.6,26				6,60		1,02	4.19.52,00			B.
	Aldebaran.....	51,5	5,7	19,2	33,2	47,8	1,7	15,7	4.26.33,54				33,87	45,28		4.27.19,28			B.
	(m) ☉ 1 L.....	52,0	6,4	20,8	35,2	50,0	4,4	19,0	4.51.35,40				35,74			4.52.21,17			B.
	(m) Rigel.....	53,8	7,2	20,9	34,2	48,1	1,6	15,1	5.6.34,41				34,63	45,43		5.7.20,07			B.
	(m) β Tauri.....	17,2	32,9	48,0	3,3	19,0	33,9	49,2	5.16.3,35				3,68	45,49		5.16.49,12			B.
	58 Geminorum..	58,2	13,0	27,4	42,0	57,0	11,2	26,0	7.13.42,11				42,42			7.14.27,95			B.
	H. C. 14554.....	7,0	21,7	36,0	51,0	5,9	20,2	35,0	7.20.50,97				51,29			7.21.36,82			B.
	Castor.....	28,8	44,8	0,2	16,2	32,6	48,2	4,1	7.24.16,42				16,75	45,54		7.25.2,28			B.
	Procyon.....	1,2	14,8	28,2	41,8	55,4	9,0	22,2	7.30.41,80				42,12	45,60		7.31.27,66			B.
	79 Geminorum..	52,7	7,0	21,2	35,8	50,2	4,5	19,0	7.35.35,77				36,10			7.36.21,64			B.
	B.A.C. 2683.....	....	51,2	5,5	20,0	34,1	48,1	....	7.55.19,78				20,11			7.56.5,67			B.
	ε Hydræ.....	24,1	37,8	51,1	5,0	18,7	32,0	45,7	8.38.4,91				5,24	45,57		8.38.50,83			B.
	α Hydræ.....	47,6	1,1	14,7	28,1	42,0	55,3	9,0	9.19.28,26				28,49	45,63		9.20.14,11			B.
Feb. 21	(e) ☉ 1 L.....	59,0	13,7	28,0	42,8	57,8	12,2	26,9	5.53.42,91			-1,0	43,29		0,95	5.54.29,82			B.
	(h) μ Geminorum...	23,1	37,8	52,1	6,9	21,7	....	50,7	6.13.6,91				7,28			6.13.53,83			B.
	Sirius.....	4,1	18,2	32,2	46,1	0,4	14,2	28,1	6.37.46,19				46,44	46,61		6.38.33,00			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

(a) No clock-stars could be observed this day. (b) Disturbance. (c) Faint. The noted times were 4^s less. (d) Cloudy nearly all this evening.
 (e) Clouds passing. (f) The N.P.D. is not exact. 'Two stars of magnitudes 5½ and 7 follow this.' (g) 'A brighter of greater N.P.D. precedes this 2^s.'
 (h) Cloudy. (i) Faint. (k) Used for clock-error, α Hydræ being observed at only three wires. (l) The sky overcast. (m) Faint from cloud.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"				h. m. s.	h. m. s.	h. m. s.	
Feb. 21	(a) Castor.....	43,3	59,0	15,2	31,3	47,1	....	....	7. 24. 15,18	-1,0	+4,3	-1,0	15,54	46,74	0,95	7. 25. 2,13			B.
	Procyon.....	14,0	27,2	40,9	54,8	7,9	21,4	....	7. 30. 40,94				41,32	46,39		7. 31. 27,92			B.
Feb. 22	(b) Rigel.....	51,9	5,2	18,8	32,3	46,2	59,8	13,1	5. 6. 32,47				32,76	47,26	0,92	5. 7. 20,11			B.
	(a) H. C. 10252.....	....	....	9,5	23,3	38,0	51,8	5,9	5. 19. 23,69				24,07			5. 20. 11,42			B.
	H. C. 10348.....	33,6	48,5	3,2	18,8	34,0	49,0	4,0	5. 22. 18,73				19,09			5. 23. 6,45			B.
	H. C. 10488.....	40,8	56,0	11,1	26,2	41,9	57,0	12,1	5. 26. 26,45				26,81			5. 27. 14,17			B.
	H. C. 10669.....	43,9	58,9	13,5	28,9	44,0	59,0	14,0	5. 31. 28,89				29,25			5. 32. 16,61			B.
	(c) α Orionis.....	35,2	48,8	2,1	15,8	29,7	43,0	56,6	5. 46. 15,89				16,28	47,25		5. 47. 3,65			B.
	μ Geminorum...	22,3	36,9	51,2	6,0	20,9	35,1	49,9	6. 13. 6,04				6,41			6. 13. 53,80			B.
	δ Ursæ Min. SP.	....	....	58,6	50,5	38,3	21,2	....	6. 19. 48,89				45,81						B.
	Sirius.....	3,2	17,2	31,2	45,0	59,5	13,2	27,2	6. 37. 45,21				45,46	47,58		6. 38. 32,86			B.
	γ 1 L.....	4,4	19,1	33,7	48,2	3,5	17,9	32,7	6. 57. 48,50				48,88			6. 58. 36,30			B.
	δ Geminorum. <i>nf</i> .	39,0	53,8	8,1	22,7	37,3	51,9	6,1	7. 10. 22,70				23,07			7. 11. 10,49			B.
	κ Geminorum. <i>nf</i>.	....	6,8	21,2	36,2	51,1	5,9	....	7. 34. 36,24				36,60			7. 35. 24,04			B.
	(d) ε Hydræ.....	....	....	....	2,9	16,8	30,0	43,5	8. 38. 2,96				3,35	47,45		8. 38. 50,83			B.
	α Hydræ.....	45,6	59,0	12,6	26,1	40,1	53,5	7,1	9. 19. 26,29				26,58	47,54		9. 20. 14,09			B.
Feb. 23	(a)(e) Sirius.....	2,1	16,2	30,2	44,2	58,7	12,3	26,3	6. 37. 44,29	-0,7	+3,3		44,54	48,48	0,91				B.
Feb. 26	Regulus.....	50,8	4,7	18,1	32,1	46,0	59,8	13,4	9. 59. 32,13				32,48	51,34	0,95	10. 0. 23,73			B.
	ρ Leonis.....	23,0	36,6	50,2	4,0	17,8	31,2	45,1	10. 24. 3,99				4,35			10. 24. 55,61			B.
	χ Leonis.....	....	....	12,1	25,9	39,6	53,2	7,0	10. 56. 25,98				26,35			10. 57. 17,63			B.
	δ Leonis.....	33,6	48,0	2,2	16,8	31,6	45,9	0,2	11. 5. 16,90				17,24	51,29		11. 6. 8,53			B.
	(f) γ 2 L.....	16,0	30,0	44,0	57,9	12,1	25,9	39,9	11. 8. 57,97				58,33			11. 9. 49,62			B.
	τ Leonis.....	42,1	55,8	9,1	22,7	36,6	49,8	3,1	11. 19. 22,74				23,10			11. 20. 14,40			B.
	β Leonis.....	51,9	5,8	19,3	33,8	47,9	1,8	15,9	11. 40. 33,77				34,11	51,22		11. 41. 25,42			B.
	β Virginis.....	....	....	....	2,1	15,6	29,1	42,8	11. 42. 2,18				2,53			11. 42. 53,84			B.
Feb. 27	⊙ 1 L.....	14,1	28,0	41,7	55,2	9,0	22,4	36,1	22. 38. 55,21				55,48		0,96	22. 39. 47,23			B.
	⊙ 2 L.....	25,1	39,0	52,4	6,1	20,1	33,4	47,1	22. 41. 6,17				6,44			22. 41. 58,20			B.
	Rigel.....	47,0	0,5	14,0	27,7	41,2	55,0	8,3	5. 6. 27,67				27,94	51,99					B.
	β Tauri.....	10,9	26,1	41,2	56,8	12,0	27,1	42,7	5. 15. 56,69				57,00	52,04					B.
Mar. 1	⊙ 1 L.....	....	....	10,0	23,4	37,3	50,9	4,1	22. 46. 23,54				23,73		0,93	22. 47. 17,40			B.
	⊙ 2 L.....	53,4	7,1	20,4	34,1	48,0	1,6	15,1	22. 48. 34,24				34,43			22. 49. 28,10			B.
	(h) Rigel.....	45,1	....	12,2	25,8	39,6	53,0	6,7	5. 6. 25,87				26,05	53,85		5. 7. 19,97			B.
	(h) β Tauri.....	9,0	24,1	....	....	10,2	25,2	....	5. 15. 54,73				54,96	54,04		5. 16. 48,88			B.
	Sirius.....	56,7	10,7	24,5	38,8	53,0	6,9	21,0	6. 37. 38,80				38,95	53,98		6. 38. 32,93			B.
	H. C. 13279.....	56,0	10,8	25,2	40,2	55,1	9,8	24,6	6. 44. 40,24				40,48			6. 45. 34,46			B.
	* N.P.D. 65°. 51'.	10,3	25,1	40,0	54,8	9,7	24,1	39,0	6. 52. 54,71				54,96			6. 53. 48,95			B.
	(a) * N.P.D. 65°. 52'.	....	44,7	59,1	14,1	29,0	43,7	....	6. 57. 14,12				14,37			6. 58. 8,36			B.
	H. C. 13856.....	45,1	0,0	14,7	29,2	44,2	59,0	14,0	7. 0. 29,46				29,71			7. 1. 23,70			B.
	58 Geminorum..	....	4,1	19,0	33,6	48,3	2,9	....	7. 13. 33,58				33,82			7. 14. 27,82			B.
	(a) * N.P.D. 65°. 54'.	24,0	39,3	53,1	7,8	23,0	....	52,0	7. 19. 8,11				8,36			7. 20. 2,36			B.
	(i) Castor.....	20,1	36,1	52,0	8,0	24,1	39,8	55,7	7. 24. 7,97				8,21	53,97		7. 25. 2,22			B.
	Procyon.....	52,8	6,2	19,8	33,1	47,1	0,3	14,0	7. 30. 33,33				33,59	54,03		7. 31. 27,60			B.
	Pollux.....	....	....	59,0	14,1	30,0	45,0	0,1	7. 35. 14,35				14,59	54,03		7. 36. 8,60			B.
Mar. 4	δ Ursæ Min. SP.	24,2	10,0	52,0	47,0	31,0	16,5	3,0	6. 19. 43,39				40,21		0,83	6. 20. 36,69			B.
	Sirius.....	54,0	7,9	22,0	36,1	50,3	4,2	18,2	6. 37. 36,10				36,25	56,62		6. 38. 32,74			B.
	H. C. 13139.....	....	35,0	48,9	2,8	17,0	30,8	....	6. 41. 2,90				3,16			6. 41. 59,65			B.
	H. C. 13259.....	29,1	44,0	59,0	14,0	29,2	44,1	59,2	6. 44. 14,08				14,32			6. 45. 10,81			B.
	H. C. 13804.....	31,8	46,2	0,9	15,6	30,3	45,1	59,9	6. 59. 15,69				15,94			7. 0. 12,44			B.
	(h) 58 Geminorum..	47,1	1,8	16,2	31,0	45,9	0,2	15,1	7. 13. 31,04				31,58			7. 14. 27,79			B.
	Castor.....	17,9	33,8	49,4	5,3	21,8	37,2	53,1	7. 24. 5,50				5,74	56,40		7. 25. 2,26			B.
	Procyon.....	....	3,8	17,3	31,0	44,3	58,0	....	7. 30. 30,88				31,14	56,44		7. 31. 27,66			B.
	79 Geminorum..	41,7	56,0	10,1	24,8	39,2	53,3	7,9	7. 35. 24,71				24,97			7. 36. 21,49			B.
	84 Geminorum..	26,2	41,0	55,4	10,0	25,0	39,1	54,0	7. 43. 10,10				10,35			7. 44. 6,88			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

(a) Cloudy. (b) Misty cloud. (c) Overcast. (d) The noted times have been diminished 17". (e) Not brighter than Mag. 7.
 (f) Very steady. (g) Cirrus cloud passing and unsteadiness. (h) Faint from cloud. (i) Beautifully defined.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"		s.	s.	s.	h.	m.	s.
Mar. 4	5 Cancri.....	18,9	32,9	46,9	1,0	15,2	29,1	43,1	7.52.1,01	-0,7	+2,8	-2,4	1,27		0,83	7.52.57,80			B.
	B.A.C. 2683.....	26,0	40,2	54,4	8,8	23,1	37,2	51,6	7.55.8,76				9,01			7.56.5,54			B.
	(a) ε Hydræ.....	13,1	26,8	40,1	53,8	7,5	21,2	35,1	8.37.53,94				54,21	56,53		8.38.50,77			B.
	α Hydræ.....	36,3	50,1	3,7	17,1	31,0	44,2	58,2	9.19.17,23				17,42	56,67		9.20.14,00			B.
Mar. 5	(b)(c) ⊙ 1 L.....				14,8		42,1	55,3	23.1.14,99				15,19		0,89	23.2.12,22			B.
	⊙ 2 L.....	44,1	58,0	11,4	25,0	38,5	52,1	5,8	23.3.24,99				25,19			23.4.22,22			B.
	(d) Polaris.....	35,0	16,5		30,0	20,0	52,0	31,5	1.3.33,71				41,06			1.4.38,17			B.
	(e) α Arietis.....			30,9	45,3	0,1	14,4	29,1	1.57.45,38				45,62	57,19		1.58.42,76			B.
	(b) β Tauri.....		21,0	36,1	51,3	7,0	22,1	37,2	5.15.51,47				51,71	57,21		5.16.48,98			B.
	α Hydræ.....	35,8	49,2	2,9	16,3	30,2	43,8	57,2	9.19.16,49				16,68	57,40		9.20.14,10			B.
	(f) η Ophiuchi.....					3,1	16,8	30,8	17.0.48,92				49,06		0,91	17.1.46,84			B.
	ν Serpentis.....	44,1	58,0	11,8	25,2	39,3	53,0	7,0	17.11.25,49				25,64			17.12.23,42			B.
	δ 2 L.....		58,0	12,2	27,1	42,1	56,2	11,1	17.18.27,11				27,25			17.19.25,04			B.
	α Ophiuchi.....	18,9	32,4	46,1	0,1	14,1	27,9	41,7	17.27.0,17				0,45	57,75		17.27.58,24			B.
Mar. 6	⊙ 1 L.....			42,8	56,3	10,2	23,7	37,2	23.4.56,49				56,70			23.5.54,70			B.
	⊙ 2 L.....	26,1	39,1	53,0	6,3	20,1	33,6	47,2	23.7.6,49				6,70			23.8.4,71			B.
	* N.P.D. 83°.20'			6,8		34,7	48,2	2,0	5.26.20,99				21,26			5.27.19,51			B.
	(g) H. C. 10816.....	53,2	7,4	21,1	34,8	48,2	1,8	15,2	5.34.34,53				34,80			5.35.33,05			B.
	Bessel v. 1204.....	28,7	42,5	56,1	10,1	24,1	38,0	52,0	5.46.10,21				10,36			5.47.8,62			B.
	(h) Bessel v. 1284.....	40,0	53,2	7,0	20,3	34,2	48,0	1,2	5.49.20,55				20,82			5.50.19,08			B.
	B.A.C. 2042.....		12,8	27,1	41,9	57,0	11,2		6.11.42,00				42,25			6.12.40,52			B.
	H. C. 12217.....	27,8	42,2	57,0	11,7	26,8	41,1	55,9	6.15.11,78				12,03			6.16.10,31			B.
	Bessel vi. 544.....			0,1	14,1	28,2	42,0	55,9	6.17.14,17				14,32			6.18.12,60			B.
	(i) 20 Geminorum.....	52,1	6,1	20,0	34,4	48,8	2,8	16,9	6.22.34,44				34,70			6.23.32,98			B.
	23 Geminorum.....	40,6	54,8	8,8	22,6	37,1	51,0	5,0	6.26.22,84				23,10			6.27.21,38			B.
	H. C. 12712.....	22,1	36,7	51,0	5,8	20,3	34,9	49,1	6.29.5,70				5,95			6.30.4,24			B.
	H. C. 12821.....	56,6	10,0	23,3	37,0	50,8	4,1	17,2	6.31.37,00				37,26			6.32.35,55			B.
	(k) Sirius.....	52,1	6,2	20,3	34,3	48,8	2,2	16,2	6.37.34,31				34,46	58,38		6.38.32,75			B.
	H. C. 13259.....	27,1	42,1	57,0	12,0	27,5	42,1	57,4	6.44.12,17				12,40			6.45.10,69			B.
	(l) * N.P.D. 65°.5'	18,0	32,9	47,8	2,6	17,8	32,1	47,0	6.56.2,60				2,84			6.57.1,14			B.
	H. C. 13806.....		43,8	58,1	12,9	27,3	42,0		6.59.12,82				13,06			7.0.11,36			B.
	49 Geminorum.....	53,0	7,9	22,2	37,8	52,9	7,7	22,4	7.2.37,70				37,94			7.3.36,25			B.
	53 Geminorum.....	51,0	6,2	21,5	37,0	52,2	7,3	22,8	7.5.36,86				37,10			7.6.35,41			B.
	Castor.....	15,9	31,8	47,5	3,4	19,8	35,3	51,2	7.24.3,56				3,80	58,30		7.25.2,12			B.
	Procyon.....		2,1	15,2	29,1	42,7	56,0		7.30.29,02				29,29	58,26		7.31.27,61			B.
	H. C. 16099.....		42,0	56,1	11,0	25,7	39,9		8.5.10,94				11,20			8.6.9,55			B.
	H. C. 16194.....	24,9	39,0	53,6	8,0	22,6	36,9	51,2	8.8.8,03				8,29			8.9.6,64			B.
	H. C. 16327.....	57,2	11,2	25,3	40,0	54,0	8,0	22,0	8.11.39,67				39,93			8.12.38,28			B.
	H. C. 16964.....	13,8	28,1	43,0	57,8	12,7	27,1	42,1	8.28.57,80				58,04			8.29.56,40			B.
	ε Hydræ.....	11,3	24,9	38,2	52,0	5,8	19,1	32,7	8.37.52,00				52,27	58,45		8.38.50,64			B.
	H. C. 18247.....	52,9	7,1	21,1	36,0	50,2	4,3	18,9	9.6.35,79				36,05			9.7.34,44			B.
	Regulus.....	43,8	57,3	11,1	25,1	39,1	52,8	6,2	9.59.25,06				25,32	58,50		10.0.23,74			B.
	δ Leonis.....	26,9	41,0	55,3	10,0	24,7	39,0	53,1	11.5.10,00				10,25	58,34		11.6.8,71			B.
	Polaris SP.....	50,0	28,0	6,0	49,0	33,0			13.3.47,81				40,22			13.4.38,75			B.
Mar. 7	(m) Polaris.....		14,0				48,0	36,0	1.3.33,62				40,97		0,84	1.4.39,91			B.
	Bessel v. 1015.....	6,4	20,0	33,6	47,1	1,0	14,3	28,0	5.38.47,20				47,47			5.39.46,57			B.
	Bessel v. 1204.....	28,0		55,1	9,1	23,1	37,0	50,9	5.46.9,25				9,40			5.47.8,50			B.
	(n)(o) H. C. 11592.....	18,1	33,0	47,6	2,2	17,2	32,0	46,2	5.58.2,33				2,58			5.59.1,69			B.
	H. C. 12486.....	51,1	6,7	21,8	37,0	52,1	7,3	22,8	6.22.36,97				37,20			6.23.36,32			B.
	(n)(p) H. C. 12597.....	57,7	11,9	26,0	40,2	55,2	9,2	23,1	6.25.40,47				40,73			6.26.39,86			B.
	H. C. 12712.....	21,2	35,8	50,2	5,0	19,5	34,0	48,2	6.29.4,84				5,09			6.30.4,22			B.
	(q) 26 Geminorum.....	58,9	12,9	27,1	41,2	55,5	9,5	23,7	6.32.41,25				41,51			6.33.40,64			B.
	Sirius.....	51,5	5,4	19,2	33,3	47,7	1,5	15,6	6.37.33,46				33,61	59,21		6.38.32,74			B.
	H. C. 13189.....		45,1	59,7	13,9	28,0	42,0		6.42.13,74				14,00			6.43.13,13			B.
	(r) H. C. 13309.....	42,0	57,1	12,1	27,1	42,6	57,8	13,0	6.45.27,39				27,62			6.46.26,76			B.
	52 Geminorum.....	48,0	2,9	17,6	32,3	47,6	2,2	17,1	7.4.32,53				32,76			7.5.31,91			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40°.337, - 26°.913, - 13°.618, + 0°.060, + 13°.573, + 26°.892, + 40°.344.

(a) Very great motion. Wires VI and VII were written down 20,2 and 31,1, and have been altered conjecturally. (b) Cloudy. (c) Without the dark glass. (d) 'Very good.' (e) Faint. (f) The noted times have been diminished by 1". (g) A fainter of somewhat greater N.P.D. precedes about 5". (h) Another of Mag. 8 and less N.P.D., follows 3". (i) The south-preceding star; the other is of Mag. 7. (k) Bad illumination of the field. The noted times have been diminished 15". (l) Observed for H. C. 13675. The N.P.D. is uncertain. (m) Clouded: barely visible at wire II. (n) Hazy. (o) Scarcely visible. (p) All the wires except I and II have been diminished 1". (q) Mist. (r) 'A brighter of Mag. 7.8 and less N.P.D. follows,' viz. H. C. 13315.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h.	m.	s.	
Mar. 7	H. C. 14108.....	43,2	58,0	12,1	26,8	41,2	55,4	9,9	7. 7. 26,66	-0,7	+2,8	-2,4	26,91		0,84	7. 8. 26,06			B.
	H. C. 14206.....	32,0	46,1	0,3	14,7	29,3	43,3	57,8	7. 10. 14,79				15,05			7. 11. 14,20			B.
	A Geminorum...	36,2	51,1	6,0	20,8	36,0	50,7	5,7	7. 13. 20,93				21,16			7. 14. 20,31			B.
	Castor.....	15,0	31,1	46,4	2,5	19,2	34,2	50,3	7. 24. 2,67				2,91	59,17		7. 25. 2,07			B.
	Procyon.....	....	1,2	14,3	28,2	42,0	55,1	8,3	7. 30. 28,09				28,37	59,17		7. 31. 27,53			B.
	(a) Pollux.....	....	....	53,9	9,1	24,8	39,8	55,1	7. 35. 9,25				9,48	59,05		7. 36. 8,65			B.
Mar. 9	(b) H. C. 12148. sp..	22,1	36,2	50,1	4,2	19,0	32,9	46,8	6. 13. 4,47				4,76		0,82	6. 14. 5,55			B.
	(c) 15 Geminorum..	6,1	20,6	35,0	49,2	4,0	18,1	32,7	6. 17. 49,39				49,68			6. 18. 50,48			B.
	H. C. 12424.....	1,8	16,0	30,2	44,8	59,3	13,6	28,0	6. 20. 44,81				45,11			6. 21. 45,91			B.
	H. C. 12859.....	....	38,2	53,9	9,1	25,0	40,0	....	6. 33. 9,24				9,52			6. 34. 10,32			B.
	Sirius.....	49,7	3,8	17,5	31,8	46,0	59,9	13,9	6. 37. 31,80				31,96	60,82					B.
	H. C. 13879.....	20,7	35,0	50,0	5,0	20,1	34,9	49,3	7. 1. 5,00				5,28			7. 2. 6,10			B.
	51 Geminorum..	3,1	16,7	30,7	44,8	59,0	13,0	26,9	7. 3. 44,89				45,19			7. 4. 46,01			B.
	H. C. 14075.....	55,1	9,9	24,7	39,8	54,4	9,0	24,0	7. 6. 39,56				39,84			7. 7. 40,66			B.
	(a) Castor.....	13,1	29,1	44,9	1,1	17,0	32,7	48,8	7. 24. 0,95				1,23	60,82					B.
Mar. 11	(d) ☉ 1 L.....	....	52,3	5,8	....	33,0	46,4	0,1	23. 23. 19,40			-1,0	19,72		0,83	23. 24. 21,87			B.
	H. C. 12356.....	5,4	19,2	33,1	47,2	1,8	15,3	29,4	6. 18. 47,34				47,69			6. 19. 50,08			B.
	(e) H. C. 12462.....	11,0	25,7	40,0	54,7	9,1	23,4	38,1	6. 21. 54,57				54,91			6. 22. 57,30			B.
	H. C. 12581.....	31,2	45,1	59,1	13,2	27,9	41,8	55,9	6. 25. 13,46				13,81			6. 26. 16,20			B.
	H. C. 12688.....	34,5	49,1	3,1	18,0	32,8	47,0	1,3	6. 28. 17,97				18,30			6. 29. 20,69			B.
	Sirius.....	47,8	2,0	16,0	30,2	44,2	58,1	12,2	6. 37. 30,07				30,32	62,43		6. 38. 32,72			B.
	H. C. 13139.....	14,9	28,6	42,2	56,8	10,9	24,8	38,6	6. 40. 56,69				57,04			6. 41. 59,44			B.
	H. C. 13235.....	....	1,4	16,0	30,7	45,3	59,9	....	6. 43. 30,66				31,00			6. 44. 33,40			B.
	H. C. 13724.....	12,0	27,1	42,2	57,9	13,2	28,4	44,0	6. 56. 57,83				58,15			6. 58. 0,56			B.
	H. C. 14383.....	38,7	52,9	7,1	21,2	35,8	49,9	4,1	7. 15. 21,38				21,72			7. 16. 24,14			B.
	Procyon.....	44,1	57,8	11,1	24,7	38,2	51,8	5,1	7. 30. 24,69				25,05	62,43		7. 31. 27,48			B.
	Pollux.....	....	....	....	5,8	21,2	36,2	51,7	7. 35. 5,76				6,08	62,40		7. 36. 8,51			B.
	H. C. 16081.....	56,1	10,9	25,0	39,6	54,1	8,3	22,8	8. 4. 39,55				39,89			8. 5. 42,34			B.
	H. C. 16327.....	52,9	7,0	21,1	35,2	50,0	3,8	18,0	8. 11. 35,43				35,78			8. 12. 38,23			B.
	(f) ε Hydræ.....	7,1	21,0	34,0	47,8	1,6	15,0	29,0	8. 37. 47,93				48,30	62,38		8. 38. 50,77			B.
	H. C. 18481.....	34,1	48,6	2,9	17,1	31,9	46,0	0,5	9. 14. 17,30				17,64			9. 15. 20,13			B.
	(g) α Hydræ.....	30,7	44,1	57,8	11,1	25,1	38,8	52,0	9. 19. 11,37				11,65	62,40		9. 20. 14,14			B.
	Bessel ix. 1220..	....	....	5,0	18,6	33,0	46,7	0,3	9. 55. 18,84				19,19			9. 56. 21,70			B.
	Regulus.....	39,5	53,2	6,8	20,8	35,1	48,6	2,1	9. 59. 20,87				21,24	62,57		10. 0. 23,76			B.
	δ Leonis.....	22,1	36,9	51,0	5,7	20,1	34,3	49,0	11. 5. 5,59				5,93	62,68		11. 6. 8,48			B.
Mar. 12	(h) ☉ 1 L.....	....	....	45,3	58,7	12,3	26,0	39,3	23. 26. 58,82				59,15		0,88	23. 28. 2,12			B.
	☉ 2 L.....	27,6	41,1	54,3	8,1	21,8	35,1	48,7	23. 29. 8,10				8,43			23. 30. 11,40			B.
	(i) Polaris.....	....	9,5	41,5	....	....	41,5	20,5	1. 3. 24,70				31,16						B.
	(k) α Arietis.....	55,3	10,1	24,7	39,1	54,0	8,2	23,2	1. 57. 39,23				39,57	63,16		1. 58. 42,63			B.
	α Orionis.....	19,1	32,4	46,0	59,6	13,2	26,8	40,2	5. 45. 59,62				59,99	63,23		5. 47. 3,19			B.
	H. C. 11684.....	46,0	1,0	15,8	30,9	46,1	0,9	15,8	6. 0. 30,93				31,25			6. 1. 34,46			B.
	11 Geminorum..	24,1	38,8	53,2	8,0	22,9	37,6	52,1	6. 9. 8,10				8,43			6. 10. 11,65			B.
	(l) H. C. 12103.....	15,6	30,1	45,0	0,4	16,1	30,7	45,2	6. 12. 0,44				0,77			6. 13. 3,99			B.
	H. C. 12650.....	....	39,9	54,1	8,3	23,0	37,0	....	6. 27. 8,46				8,80			6. 28. 12,03			B.
	(m) H. C. 12724.....	....	57,1	11,2	26,0	40,8	55,1	....	6. 29. 26,04				26,38			6. 30. 29,61			B.
	Sirius.....	47,1	1,1	15,0	29,1	43,2	57,2	11,2	6. 37. 29,13				29,38	63,35		6. 38. 32,61			B.
	(n) H. C. 13594.....	27,1	42,1	57,1	12,1	27,1	42,0	56,8	6. 53. 12,04				12,36			6. 54. 15,60			B.
	H. C. 13707.....	....	43,2	57,7	12,4	27,2	41,9	....	6. 56. 12,48				12,82			6. 57. 16,06			B.
	45 Geminorum..	0,9	14,6	28,3	42,4	56,8	10,7	24,7	6. 58. 42,63				42,98			6. 59. 46,23			B.
	H. C. 13931.....	55,6	10,8	25,9	41,0	56,8	11,8	27,0	7. 2. 41,27				41,59			7. 3. 44,84			B.
	H. C. 14053.....	6,1	20,9	35,0	49,3	4,0	18,1	32,2	7. 5. 49,38				49,72			7. 6. 52,97			B.
	H. C. 14153.....	8,1	23,0	38,1	53,1	8,7	23,4	38,2	7. 8. 53,23				53,56			7. 9. 56,81			B.
	(o) Castor.....	10,9	26,7	42,2	58,1	14,5	30,1	46,1	7. 23. 58,38				58,70	63,30		7. 25. 1,96			B.
	Procyon.....	43,3	56,7	10,2	23,9	37,4	50,9	4,2	7. 30. 23,80				24,16	63,31		7. 31. 27,42			B.
	Pollux.....	....	....	49,2	4,8	20,3	35,4	50,7	7. 35. 4,79				5,11	63,35		7. 36. 8,38			B.
	H. C. 15673.....	23,0	38,1	53,0	8,0	23,3	38,2	53,2	7. 53. 8,32				8,65			7. 54. 11,93			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40",337, - 26",913, - 13",618, + 0",060, + 13",573, + 26",892, + 40",344.

- (a) Clouds came over after this observation. (b) The brighter star. (c) 'A star of Mag. 9 and of somewhat greater N.P.D. precedes 1s.'
 (d) Very cloudy; partly without the dark glass. The noted times were 1m greater. (e) Great motion. (f) Unusual motion. (g) Motion.
 (h) The noted times were 21s greater. (i) 'Steady and good.' (k) Tremulous. (l) Too faint; a fainter south-follows. (m) 'One of Mag. 7.8 precedes.'
 (n) 'One of equal magnitude and less N.P.D. precedes 14s,' viz. H. C. 13586. (o) Beautifully defined.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h. m. s.	
Mar. 12	H. C. 15880.....	10,0	24,2	38,7	52,9	7,6	21,9	35,9	7.58.53,03	-0,7	+3,4	-1,0	53,38		0,88	7.59.56,66	B.
	H. C. 15965.....		2,8	17,1	32,0	47,1	1,8		8.1.32,16				32,49			8.2.35,77	B.
	H. C. 16066.....	35,0	49,7	3,9	18,2	32,9	47,1	1,2	8.4.18,29				18,64			8.5.21,93	B.
	ε Hydrae.....	6,6	20,0	33,6	46,9	1,0	14,1	27,9	8.37.47,16				47,53	63,14		8.38.50,84	B.
	(a) H. C. 18334.....	28,8	43,0	56,8		26,1	39,3	53,9	9.9.11,31				11,67			9.10.15,00	B.
	(b) α Hydrae.....			56,9	10,3	24,2	37,9	51,1	9.19.10,50				10,79	63,25		9.20.14,12	B.
	Regulus.....		52,7	6,0	20,2	34,0	47,9	1,7	9.59.20,19				20,56	63,25		10.0.23,92	B.
	δ Leonis.....	21,9	36,0	50,1	5,0	19,4	34,0	48,2	11.5.4,94				5,28	63,34		11.6.8,68	B.
Mar. 13	⊙ 1 L.....	56,7	10,1	23,6	37,2	51,0	4,2	17,8	23.30.37,23				37,56		0,87	23.31.41,46	B.
	⊙ 2 L.....		19,9	33,1	46,9	0,7	14,0	27,5	23.32.46,93				47,26			23.33.51,16	B.
	(c) α Arietis.....	54,8	9,3	23,7	38,2	53,2	7,7	22,2	1.57.38,45				38,79	63,93		1.58.42,78	B.
	(d) Rigel.....	34,8	48,1	1,8	15,2	29,0	42,8	56,0	5.6.15,39				15,68	63,99		5.7.19,78	B.
	β Tauri.....	58,3	13,9	29,0	44,1	59,9	15,0	30,2	5.15.44,34				44,66	64,10		5.16.48,77	B.
	(e) B.A.C. 2184.....		10,4	24,2	38,2	52,8	6,7		6.31.38,46				38,81			6.32.42,97	B.
	H. C. 12914.....	47,1	1,2	15,9	30,1	44,7	59,0	13,2	6.34.30,17				30,51			6.35.34,67	B.
	Sirius.....	46,1	0,2	14,1	28,2	42,7	56,2	10,2	6.37.28,25				28,50	64,21		6.38.32,66	B.
	H. C. 13708.....	31,9	46,2	0,3	14,9	29,1	43,2	57,9	6.56.14,79				15,14			6.57.19,31	B.
	H. C. 14206.....	27,0	41,0	55,1	9,7	24,1	38,1	52,6	7.10.9,66				10,01			7.11.14,19	B.
	(a) H. C. 14304.....	20,1	34,8	49,0	3,8	17,8	33,1	47,3	7.13.3,70				4,03			7.14.8,21	B.
	H. C. 14407.....	24,9	38,8	52,9	7,1	21,2	35,5	49,8	7.16.7,17				7,52			7.17.11,70	B.
	* N.P.D. 65°.54'		28,0	42,2		13,3	27,0	41,7	7.18.57,59				57,92			7.20.2,10	B.
	(f) Castor.....	9,9	25,6	41,5	57,1	13,2	29,1	45,1	7.23.57,36				57,68	64,30		7.25.1,87	B.
	(a) H. C. 14792.....		24,2	38,1		5,0	19,8	34,1	7.26.51,82				52,17			7.27.56,36	B.
	Procyon.....	42,2	55,9	9,2	22,9	36,4	49,8	3,3	7.30.22,81				23,18	64,27		7.31.27,37	B.
	(f) Pollux.....	18,1	33,0	48,3	3,9	19,2	34,1	49,8	7.35.3,77				4,09	64,35		7.36.8,28	B.
	H. C. 15678.....	19,7	33,9	47,8	1,6	16,0	30,0	44,1	7.53.1,87				2,22			7.54.6,43	B.
	H. C. 15759.....		13,1	27,1	41,2	56,0	9,8		7.55.41,44				41,79			7.56.46,00	B.
	(g) H. C. 17847.....	11,8	26,1	40,3	56,2	11,2	25,4	40,1	8.53.55,87				56,21			8.55.0,45	B.
	B.A.C. 3181.....	24,3	38,9	53,0	7,1	22,0	36,0	50,2	9.11.7,36				7,71			9.12.11,96	B.
	α Hydrae.....	28,9	42,1	55,8	9,2	23,1	36,9	50,2	9.19.9,46				9,75	64,28		9.20.14,01	B.
	Regulus.....	38,0	51,7	5,2	19,1	33,2	46,9	0,3	9.59.19,20				19,56	64,24		10.0.23,84	B.
	(b) β Leonis.....		53,0	7,1		35,0	48,9	2,6	11.40.20,95				21,31	64,16		11.41.25,65	B.
Mar. 15	α Orionis.....	16,4	30,0	43,6	57,1	11,0	24,2	38,0	5.45.57,19				57,56	65,61	0,65	5.47.3,21	B.
	Sirius.....	44,8	58,9	12,6	26,8	40,9	54,9	8,9	6.37.26,83				27,08	65,59		6.38.32,75	B.
	H. C. 13708.....	30,3	44,4	59,0	13,0	27,8	41,9	56,1	6.56.13,21				13,56			6.57.19,24	B.
	H. C. 13806.....		36,0	50,2	5,0	20,0	34,1		6.59.5,06				5,40			7.0.11,08	B.
	H. C. 13910.....	9,8	23,8	38,1	52,7	7,0	21,0	35,2	7.1.52,51				52,86			7.2.58,54	B.
	H. C. 14167.....	22,2	38,0	52,2	8,1	25,1	38,1	53,0	7.9.7,82				8,15			7.10.13,83	B.
	H. C. 14369.....		20,4	34,1	48,2	2,3	16,3		7.14.48,26				48,62			7.15.54,31	B.
	(h) H. C. 14431.....	39,8	55,3	10,2	25,3	40,9	55,9	11,0	7.17.25,49				25,81			7.18.31,50	B.
	Castor.....		24,1	39,5	55,7	11,9	27,3	43,3	7.23.55,69				56,01	65,93		7.25.1,70	B.
	Procyon.....	40,9	54,2	7,8	21,5	35,2	48,6	2,0	7.30.21,45				21,82	65,60		7.31.27,51	B.
	Pollux.....			47,0	2,1	17,7	32,8	48,2	7.35.2,27				2,59	65,82		7.36.8,29	B.
	H. C. 15159.....		21,0	35,1	50,0	4,3	18,7		7.38.49,82				50,16			7.39.55,86	B.
	B.A.C. 2605.....	24,9	39,1	53,2	7,3	21,9	36,0	50,3	7.42.7,53				7,88			7.43.13,58	B.
	H. C. 15394.....	21,1	35,3	49,4	3,8	18,2	32,3	46,8	7.45.3,84				4,19			7.46.9,89	B.
	H. C. 15482.....		18,7	32,3	47,1	1,3	15,2		7.47.46,92				47,27			7.48.52,97	B.
	μ ¹ Cancri.....	35,7	50,2	4,3	19,3	34,1	48,7	3,1	7.56.19,35				19,69			7.57.25,39	B.
	12 Cancri.....	32,1	46,0	59,8	13,8	28,0	41,7	55,3	7.59.13,81				14,17			8.0.19,88	B.
	Bessel VIII. 334.....	23,9	37,4	51,2	4,7	19,2	33,1	46,7	8.12.5,17				5,53			8.13.11,24	B.
	H. C. 16452.....	18,8	33,2	47,2	2,0	16,1	30,9	45,0	8.15.1,88				2,22			8.16.7,93	B.
	(a) H. C. 16677.....	25,2		54,0	8,1	23,1	37,0	52,2	8.21.8,47				8,81			8.22.14,53	B.
	ε Hydrae.....	4,0	17,3	30,9	44,3	58,2	12,0	25,1	8.37.44,54				44,91	65,72		8.38.50,63	B.
	B.A.C. 3138.....	14,0	28,5	43,0	57,2	12,1	26,1	41,0	9.3.57,42				57,75			9.5.3,49	B.
	H. C. 18260.....		20,6	34,2	48,1	2,2	16,1		9.6.48,24				48,60			9.7.54,34	B.
	H. C. 18334.....	26,1	40,2	54,2	8,3	23,0	37,0	51,1	9.9.8,56				8,91			9.10.14,65	B.
	Bessel IX. 360.....	20,3	34,0	47,5	1,1	15,1	28,9	42,2	9.16.1,30				1,67			9.17.7,41	B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,337, -26°,913, -13°,618, +0°,060, +13°,573, +26°,892, +40°,344.

(a) Very faint. (b) The noted times were 13^s greater. (c) Very tremulous. (d) Beautifully defined. (e) Mist. (f) Bad definition.
(g) Very faint at times. The intervals are irregular. (h) One somewhat brighter of the same N.P.D. precedes about 45^s.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		1	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
Mar. 15	α Hydræ.....	27,2	41,0	54,3	8,0	22,0	35,1	49,0	9. 19. 8,09	-0,7	+3,4	-1,0	8,38	65,63	0,65	9. 20. 14,12	B.		
	(a) δ Leonis.....	19,1	33,4	47,9	2,3	17,1	31,3	46,0	11. 5. 2,44				2,78	65,84		11. 6. 8,57	B.		
	(b) β Leonis.....	37,8	51,3	5,2	19,1	33,6	47,3	1,2	11. 40. 19,36				19,72	65,76		11. 41. 25,53	B.		
Mar. 16	(c) H. C. 13889.	41,8	56,1	10,2	24,7	39,6	53,3	7,9	7. 1. 24,80				25,15		0,60	7. 2. 31,44	B.		
	H. C. 13987. ....	....	37,8	52,5	8,1	23,7	39,0	....	7. 4. 8,22				8,54			7. 5. 14,83	B.
	(b)(d) H. C. 14224.	46,1	0,1	14,0	27,9	42,0	55,9	10,0	7. 10. 28,00				28,36			7. 11. 34,65	B.		
	(e) H. C. 14336.	11,2	24,9	39,1	53,1	7,1	21,2	35,1	7. 13. 53,10				53,46			7. 14. 59,75	B.		
	61 Geminorum..	16,6	31,0	45,0	59,3	14,0	28,1	42,7	7. 16. 59,53				59,88			7. 18. 6,17	B.		
	(f) H. C. 14550.	33,1	47,3	1,9	16,2	30,9	45,1	59,8	7. 20. 16,33				16,67			7. 21. 22,96	B.		
	Castor.....	7,6	23,7	39,1	55,2	11,0	27,0	43,1	7. 23. 55,24				55,56	66,36		7. 25. 1,85	B.		
	Procyon.....	40,1	53,9	7,1	20,9	34,5	48,1	1,2	7. 30. 20,83				21,20	66,21		7. 31. 27,50	B.		
	Pollux.....	15,9	31,2	46,1	1,8	17,1	32,1	47,3	7. 35. 1,64				1,96	66,43		7. 36. 8,26	B.		
	H. C. 15132. ....	....	28,0	42,0	55,9	10,2	24,0	....	7. 37. 56,02				56,37			7. 39. 2,67	B.
	(d)(g) H. C. 15243.	17,6	32,3	46,8	1,6	16,0	30,8	45,2	7. 41. 1,47				1,81			7. 42. 8,11	B.		
	(h) Bessel VIII. 58 ..	41,0	54,6	8,3	22,1	36,1	50,0	4,0	8. 2. 22,30				22,66			8. 3. 28,97	B.		
	* N.P.D. 68°. 22'	....	53,3	8,1	22,2	37,2	51,4	....	8. 7. 22,44				22,78			8. 8. 29,09	B.
	H. C. 16283.	30,0	44,0	58,1	12,8	27,1	41,5	55,7	8. 10. 12,74				13,09			8. 11. 19,40	B.		
	H. C. 16379.	21,1	....	46,3	1,0	14,2	28,2	42,1	8. 13. 0,86				1,22			8. 14. 7,54	B.	
	H. C. 16496.	28,3	42,7	57,0	11,2	26,0	40,2	54,2	8. 16. 11,37				11,71			8. 17. 18,03	B.		
	(f) 29 Cancræ.....	27,1	41,0	55,0	....	23,0	36,8	50,5	8. 19. 8,89				9,25			8. 20. 15,57	B.	
	ϵ Hydræ.....	3,3	16,9	30,0	44,0	57,4	11,0	24,5	8. 37. 43,87				44,24	66,38		8. 38. 50,57	B.		
	H. C. 17441.....	26,4	40,1	54,1	7,7	22,0	35,6	49,1	8. 42. 7,86				8,22			8. 43. 14,55	B.		
	Regulus.....	35,9	49,8	3,1	17,0	31,2	44,9	58,1	9. 59. 17,14				17,50	66,29		10. 0. 23,86	B.		
	H. C. 20838.	52,3	5,9	19,2	33,0	46,3	0,0	13,2	10. 40. 32,84				33,21			10. 41. 39,59	B.		
	Bessel x. 823....	15,2	28,8	42,2	56,0	10,1	23,2	36,9	10. 43. 56,06				56,43			10. 45. 2,81	B.		
	δ Leonis.....	18,8	33,1	47,3	1,8	16,7	31,0	45,1	11. 5. 1,97				2,31	66,31		11. 6. 8,70	B.		
	(i) β Leonis.....	....	50,9	4,7	18,7	33,0	46,8	0,3	11. 40. 18,76				19,12	66,37		11. 41. 25,52	B.	
Mar. 18	(k) \odot 1 L.....	10,6	24,0	37,3	50,8	4,4	17,7	31,1	23. 48. 50,84				51,19		0,62	23. 49. 58,51	B.		
	\odot 2 L.....	19,6	33,0	46,4	0,0	13,6	26,9	40,3	23. 50. 59,97				0,32			23. 52. 7,65	B.		
	) 1 L.....	59,6	13,7	27,9	42,0	56,8	10,7	25,0	3. 34. 42,24				42,60			3. 35. 50,02	B.	
Mar. 21	(l) ϵ Hydræ.....	0,1	13,3	27,0	40,6	54,2	7,9	21,1	8. 38. 40,60		+2,7	-1,3	40,92	9,64	0,55	8. 38. 50,43	B.		
	(m) Bessel ix. 1074..	55,9	9,6	23,2	37,2	51,2	5,1	19,1	9. 49. 37,33				37,64			9. 49. 47,18	B.		
	Bessel ix. 1176..	56,2	10,1	24,0	38,1	52,2	5,6	20,0	9. 54. 38,03				38,34			9. 54. 47,88	B.		
	(n) * N.P.D. 74°. 50'	41,3	56,1	....	23,1	36,7	50,8	4,7	9. 58. 23,11				23,42			9. 58. 32,96	B.	
	Regulus.....	....	46,1	0,2	13,7	28,2	41,6	55,1	10. 0. 13,93				14,24	9,52		10. 0. 23,78	B.	
	δ Leonis.....	15,4	30,1	44,2	59,0	13,3	27,9	42,1	11. 5. 58,86				59,15	9,47		11. 6. 8,71	B.		
Mar. 23	α Hydræ.....	22,4	35,9	49,3	3,0	16,9	30,3	44,0	9. 20. 3,11				3,36	10,57	0,50	9. 20. 13,96	T.		
	δ Leonis.....	14,2	28,5	43,2	57,6	12,4	26,6	41,2	11. 5. 57,67				57,96	10,66		11. 6. 8,60	T.		
	β Leonis.....	32,8	46,5	0,6	14,5	28,7	42,3	56,4	11. 41. 14,54				14,85	10,66		11. 41. 25,50	T.		
Mar. 25	\odot 1 L.....	....	48,7	2,0	15,4	29,3	42,4	56,2	0. 15. 15,59				15,90		0,55	0. 15. 27,26	T.	
	\odot 2 L.....	44,0	57,1	10,4	24,2	37,6	51,2	4,6	0. 17. 24,16				24,47			0. 17. 35,83	T.		
	(o) Castor.....	....	18,1	34,0	50,1	6,0	21,8	37,3	7. 24. 49,93				50,19	11,56		7. 25. 1,71	T.	
	Procyon.....	34,9	48,2	1,6	15,3	29,2	42,4	56,1	7. 31. 15,39				15,71	11,55		7. 31. 27,23	T.		
	(o)(p) Pollux.....	10,2	25,4	41,0	56,2	11,9	27,1	42,3	7. 35. 56,30				56,56	11,66		7. 36. 8,08	T.		
	H. C. 16033.	41,5	55,9	11,0	25,9	41,0	55,9	10,6	8. 4. 25,97				26,24			8. 4. 37,77	T.		
	Bessel VIII. 221..	7,2	....	35,1	48,9	2,9	16,5	30,4	8. 8. 48,88				49,19			8. 9. 0,73	T.	
	H. C. 16327.	44,0	58,0	12,1	26,3	40,2	54,4	8,9	8. 12. 26,27				26,57			8. 12. 38,11	T.		
	H. C. 16447. ....	....	20,2	35,1	50,1	5,0	19,7	....	8. 15. 50,02				50,29			8. 16. 1,83	T.
	H. C. 16565.	53,1	7,3	21,9	36,4	51,2	5,6	20,2	8. 18. 36,53				36,81			8. 18. 48,35	T.		
	Bessel VIII. 583..	....	46,9	0,2	14,4	28,8	42,4	56,3	8. 22. 14,55				14,86			8. 22. 26,40	T.	
	H. C. 16845.	9,0	23,0	37,3	51,9	6,3	20,9	35,0	8. 26. 51,91				52,20			8. 27. 3,74	T.		
	H. C. 17012.	7,2	21,2	35,2	49,7	3,9	18,0	32,0	8. 30. 49,60				49,90			8. 31. 1,45	T.		
	Bessel VIII. 941..	53,6	7,5	21,2	35,4	49,5	3,2	17,0	8. 35. 35,34				35,65			8. 35. 47,20	T.		
	ϵ Hydræ.....	58,1	11,5	25,0	38,4	52,5	5,9	19,4	8. 38. 38,69				39,01	11,49		8. 38. 50,56	T.		

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°.344, -26°.892, -13°.573, -0°.060, +13°.618, +26°.913, +40°.337.

March 18, 23^h, Hardy was put forward 1^m.

(a) Bad definition. (b) Corrected by +1^s, the counting being 1^s short. (c) After clouds had cleared off. (d) Loud wind. (e) 'A brighter of less N.P.D. precedes.' (f) The noted time was 1^m greater. (g) The noted times were 1^s less. (h) 'Followed by a smaller of greater N.P.D.' (i) Flaring. (j) Very tremulous and badly defined. No clock-stars could be obtained this day. (l) The evening had been cloudy. (m) 'A fainter of somewhat less N.P.D. precedes about 15^s.' (n) Cloudy. Should the time be 1^m greater? (o) The field not sufficiently illuminated. (p) Doubtful observation.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		h. m. s.	"	"					
Mar. 25	(a) Bessel VIII. 1112.	....	4,0	17,2	31,0	45,8	59,2	12,9	8.42.31,44	-0,7	+2,7	-1,3	31,75		0,55	8.42.43,30	T
	(b) H. C. 17565	36,1	50,1	4,0	18,2	32,2	46,2	0,2	8.46.18,15				18,46			8.46.30,01	T
	α Hydræ	21,5	35,0	48,4	2,1	16,0	29,4	43,0	9.20.2,20				2,45	11,45		9.20.14,01	T
	δ 1 L.	....	47,0	0,4	14,5	29,0	43,0	56,9	10.40.14,79				15,11			10.40.26,70	T
	(c) δ Leonis	....	....	42,1	57,0	11,5	25,7	40,2	11.5.56,86				57,15	11,46		11.6.8,75	T
	(d) σ Leonis	....	....	59,6	13,1	27,1	40,6	54,1	11.13.13,36				13,68			11.13.25,29	T
	τ Leonis	22,4	35,8	49,1	2,6	16,2	29,3	43,2	11.20.2,65				2,97			11.20.14,58	T
	β Leonis	31,8	45,9	59,5	13,6	27,4	41,5	55,3	11.41.13,57				13,88	11,63		11.41.25,50	T
	β Corvi	37,1	51,6	6,1	20,8	35,4	50,0	4,4	12.26.20,77				20,98	11,66		12.26.32,61	T
	Mar. 26	(e) ☉ 1 L.	12,3	26,0	39,2	52,5	6,6	19,8	33,4	0.18.52,83				53,14		0,54	0.19.5,12	T
☉ 2 L.		21,0	34,6	47,9	1,5	15,2	28,4	42,0	0.21.1,51				1,82			0.21.13,80	T
(c) Regulus		30,0	43,6	57,2	11,1	25,1	38,5	52,6	10.0.11,15				11,46	12,23		10.0.23,66	T
δ Leonis		12,9	27,2	41,6	56,1	10,7	25,0	39,5	11.5.56,14				56,43	12,18		11.6.8,65	T
τ Leonis		....	....	48,4	2,0	15,9	29,1	42,5	11.20.2,11				2,43			11.20.14,65	T
δ 1 L.		3,0	16,9	30,5	44,6	58,9	12,4	26,1	11.36.44,63				44,95			11.36.57,18	T
β Leonis		31,2	45,2	58,9	13,0	27,1	41,0	54,8	11.41.13,03				13,34	12,17		11.41.25,57	T
(c) π Virginis		....	32,6	46,0	59,7	13,6	27,0	40,5	11.52.59,79				0,11			11.53.12,35	T
η Virginis		22,6	36,0	49,2	2,8	16,5	29,6	43,2	12.12.2,84				3,15			12.12.15,39	T
(f) β Corvi		....	51,1	5,3	20,1	34,9	49,3	....	12.26.20,14				20,35	12,29		12.26.32,60	T
Mar. 27	☉ 1 L.	49,4	3,1	16,3	30,1	43,7	57,0	10,5	0.22.30,01				30,32		0,55	0.22.42,77	T
	☉ 2 L.	58,3	12,0	25,3	38,9	52,6	6,1	19,3	0.24.38,93				39,24			0.24.51,69	T
	(g) Polaris	....	53,0	26,5	9,5	56,5	....	6,0	1.4.10,53				16,01			1.4.28,47	T
	β Leonis	30,6	44,6	58,5	12,5	26,7	40,4	54,2	11.41.12,50				12,81	12,71		11.41.25,52	T
	π Virginis	18,5	32,2	45,5	59,2	13,0	26,3	40,1	11.52.59,26				59,58			11.53.12,29	T
	η Virginis	22,0	35,2	48,8	2,1	15,5	29,2	42,6	12.12.2,20				2,51			12.12.15,23	T
	β Corvi	36,1	50,5	5,1	19,7	34,3	48,8	3,4	12.26.19,70				19,91	12,74		12.26.32,63	T
	δ 2 L.	0,8	14,6	28,2	42,0	56,1	9,6	23,5	12.33.42,11				42,41			12.33.55,14	T
	θ Virginis	....	32,5	46,0	59,6	13,2	26,5	40,0	13.1.59,56				59,83			13.2.12,57	T
	(h) Polaris SP.	26,5	6,0	35,0	22,5	3,3	40,0	19,0	13.4.21,76				15,80			13.4.28,54	T
Mar. 28	(i) Hebe	....	26,4	40,2	54,0	8,0	21,3	35,2	13.8.53,99				54,30			13.9.7,04	T
	Spica	25,3	38,9	52,3	6,1	20,0	33,7	47,2	13.17.6,22				6,45	12,75		13.17.19,19	T
	☉ 1 L.	27,2	40,3	54,0	7,3	21,0	34,4	47,9	0.26.7,45				7,77		0,61	0.26.20,81	T
	☉ 2 L.	35,8	49,2	2,6	16,2	29,9	43,3	56,8	0.28.16,26				16,58			0.28.29,62	T
	Aldebaran	23,2	37,1	51,2	5,1	19,4	33,2	47,1	4.27.5,19				5,49	13,03		4.27.18,63	T
	Castor	0,6	16,2	32,0	48,0	4,1	19,8	35,8	7.24.48,07				48,33	13,36		7.25.1,55	T
	(c) Procyon	33,2	47,0	0,0	13,5	....	....	54,1	7.31.13,71				14,03	13,18		7.31.27,25	T
	Pollux	8,9	24,0	39,2	54,6	10,0	25,2	40,5	7.35.54,63				54,89	13,28		7.36.8,11	T
	Bessel VIII. 936	39,4	53,3	7,2	21,0	35,0	48,6	2,5	8.35.21,00				21,31			8.35.34,56	T
	H. C. 17288	0,5	14,2	28,0	42,2	56,3	10,0	24,2	8.38.42,20				42,50			8.38.55,75	T

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

(a) Too faint. (b) The north-preceding of two of equal magnitude. (c) Cloudy. (d) All the wires except III have been corrected by +10".
 (e) Very steady. (f) Scarcely seen. (g) Wires V and VII uncertain on account of clouds. (h) Very badly defined and unsteady. (i) Excessively faint and difficult to observe. (k) Very faint. (l) 'One of equal magnitude and less N.P.D. follows a few seconds.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	s.	h.	m.	s.
Mar. 28	Bessel ix. 962...	20,8	34,2	47,5	1,5	15,4	28,6	42,1	9. 44. 1,44	-0,7	+2,7	-1,3	1,76		0,61	9. 44. 15,04			T.
	Regulus.....	....	....	56,2	10,2	24,1	37,7	51,5	10. 0. 10,16				10,47	13,23		10. 0. 23,75			T.
	θ Virginis.....	18,6	31,9	45,4	59,0	12,6	26,0	39,6	13. 1. 59,02				59,29			13. 2. 12,65			T.
	(a) Hebe.....	23,0	36,3	49,9	3,9	17,6	31,2	45,0	13. 8. 3,84				4,16			13. 8. 17,52			T.
	Spica.....	24,5	38,2	51,9	5,6	19,4	32,9	46,7	13. 17. 5,60				5,83	13,38		13. 17. 19,20			T.
	γ 2 L.....	28,9	42,5	56,3	10,1	24,2	37,9	51,9	13. 27. 10,25				10,52			13. 27. 23,89			T.
	81 Virginis.....	....	....	....	31,5	45,7	58,9	12,4	13. 29. 31,79				32,04			13. 29. 45,41			T.
	84 Virginis.....	38,8	52,1	5,5	19,1	32,9	46,3	59,4	13. 35. 19,16				19,48			13. 35. 32,86			T.
	κ Virginis.....	1,0	14,6	28,1	41,7	55,6	9,1	22,8	14. 4. 41,84				42,07			14. 4. 55,46			T.
	Arcturus.....	53,9	8,2	22,3	36,7	51,2	5,4	19,4	14. 8. 36,73				37,02			14. 8. 50,41			T.
	λ Virginis.....	....	20,2	34,0	47,9	1,7	15,3	....	14. 10. 47,82				48,04			14. 11. 1,43			T.
Mar. 30	(b) ☉ 1 L.....	41,9	55,2	8,4	22,2	36,0	49,2	2,8	0. 33. 22,24			+3,5	22,59			0. 33. 36,85			T.
	☉ 2 L.....	50,0	3,9	17,0	30,8	44,4	57,9	11,2	0. 35. 30,74				31,09			0. 35. 45,35			T.
Apr. 5	(c) Sirius.....	31,5	45,4	59,2	13,5	27,5	41,6	55,5	6. 38. 13,46	+1,0	+1,4	-3,7	13,41	18,84	0,92	6. 38. 32,21			T.
	Procyon.....	27,7	41,2	54,6	8,3	22,1	35,2	48,9	7. 31. 8,29				8,22	18,85		7. 31. 27,06			T.
	(d) Pollux.....	3,2	18,4	33,6	49,2	4,6	19,9	35,0	7. 35. 49,13				49,21	18,80		7. 36. 8,05			T.
	α Hydræ.....	14,2	27,7	41,2	55,1	8,8	22,1	35,7	9. 19. 54,97				54,92	18,84		9. 20. 13,83			T.
	δ Leonis.....	6,4	20,8	35,0	49,6	....	....	....	11. 5. 49,65				49,70	18,87		11. 6. 8,68			T.
	(e) B.A.C. 4069.....	4,2	....	30,9	44,6	58,2	11,6	25,1	11. 56. 44,60				44,53			11. 57. 3,54			T.
	B.A.C. 4083.....	21,8	35,1	48,5	2,2	15,9	29,1	42,3	12. 0. 2,12				2,08			12. 0. 21,09			T.
	(e) Bessel xii. 64.....	44,0	57,3	10,9	24,7	38,1	51,2	4,7	12. 4. 24,41				24,37			12. 4. 43,38			T.
	(f) * N.P.D. 92° 11'	26,5	39,9	53,0	6,9	20,3	33,9	47,1	12. 8. 6,80				6,76			12. 8. 25,77			T.
	Bessel xii. 181 ..	45,0	58,2	11,8	25,3	39,1	52,3	5,9	12. 11. 25,37				25,35			12. 11. 44,37			T.
	(g) H. C. 23179.....	21,1	34,5	48,0	1,7	15,2	28,7	42,0	12. 15. 1,60				1,58			12. 15. 20,60			T.
	Bessel xii. 295 ..	23,1	36,7	49,9	3,6	17,2	30,4	44,0	12. 18. 3,56				3,50			12. 18. 22,52			T.
	β Corvi.....	30,0	44,4	59,0	13,7	28,4	42,8	57,2	12. 26. 13,64				13,58	19,10		12. 26. 32,61			T.
	(h) Bessel xii. 1047 ..	37,0	51,0	4,5	18,5	32,5	46,2	0,1	13. 0. 18,55				18,50			13. 0. 37,55			T.
	Spica.....	19,2	33,1	46,3	0,3	14,1	27,4	41,2	13. 17. 0,22				0,15	19,13		13. 17. 19,21			T.
Apr. 9	(i) δ Leonis.....	....	16,9	31,2	46,0	0,6	14,6	29,1	11. 5. 45,85				45,91	22,63	1,07				T.
	(k) β Leonis.....	21,0	34,7	48,5	3,1	17,0	30,5	44,5	11. 41. 2,76				2,73	22,77					T.
Apr. 10	(l) ☉ 1 L.....	39,4	....	....	....	....	47,3	1,2	1. 13. 20,22				20,15		1,09	1. 13. 43,46			T.
	☉ 2 L.....	48,6	2,3	15,8	29,8	43,3	57,0	10,4	1. 15. 29,60				29,53			1. 15. 52,84			T.
	Aldebaran.....	....	27,0	40,8	55,1	9,2	23,1	37,0	4. 26. 55,03				55,02	23,32		4. 27. 18,47			T.
	Rigel.....	15,1	28,6	41,9	55,9	9,5	23,1	36,4	5. 6. 55,79				55,74	23,46		5. 7. 19,22			T.
	ε Hydræ.....	45,9	59,4	13,0	26,8	40,3	53,7	7,3	8. 38. 26,63				26,56	23,71		8. 38. 50,20			T.
	Bessel ix. 148 ..	39,6	53,4	6,7	20,7	34,7	48,2	1,7	9. 7. 20,71				20,65			9. 7. 44,31			T.
	(m) Bessel ix. 234 ..	31,2	44,9	58,4	12,8	26,7	40,2	54,1	9. 11. 12,61				12,56			9. 11. 36,23			T.
	H. C. 18457.....	22,8	36,4	50,5	4,7	18,9	32,8	46,8	9. 14. 4,70				4,69			9. 14. 28,36			T.
	B.A.C. 3209.....	8,4	22,4	36,5	50,6	5,0	19,0	33,0	9. 16. 50,70				50,70			9. 17. 14,37			T.
	α Hydræ.....	9,2	23,0	36,4	50,2	3,8	17,1	30,7	9. 19. 50,05				50,00	23,73		9. 20. 13,67			T.
	(n) Bessel ix. 497 ..	6,6	20,2	33,9	47,6	1,2	15,0	28,9	9. 22. 47,63				47,57			9. 23. 11,25			T.
	Bessel ix. 564 ..	....	....	0,3	14,4	28,0	41,8	55,2	9. 25. 14,23				14,17			9. 25. 37,85			T.
	Bessel ix. 628 ..	13,8	27,2	40,9	54,9	8,7	22,2	36,0	9. 27. 54,81				54,75			9. 28. 18,43			T.
	Bessel ix. 692 ..	5,4	19,0	32,4	46,4	0,1	13,6	27,2	9. 30. 46,30				46,22			9. 31. 9,90			T.
	Bessel ix. 749 ..	58,5	12,2	26,0	39,9	54,1	7,9	21,5	9. 33. 40,02				39,98			9. 34. 3,67			T.
	(o) Bessel ix. 810 ..	53,0	6,6	20,2	34,3	48,2	1,5	15,5	9. 36. 34,19				34,14			9. 36. 57,83			T.
	(p) H. C. 19239.....	51,2	5,4	19,2	33,4	47,5	1,2	15,1	9. 40. 33,28				33,25			9. 40. 56,94			T.
	19 Leonis Min...	....	38,4	52,1	6,0	19,4	33,1	....	9. 48. 5,80				5,73			9. 48. 29,43			T.
	Bessel ix. 1117 ..	47,6	1,2	15,1	29,2	43,3	57,2	11,0	9. 51. 29,23				29,20			9. 51. 52,90			T.
	(q) B.A.C. 3430.....	17,2	31,1	44,3	58,1	12,1	25,4	39,1	9. 54. 58,19				58,11			9. 55. 21,81			T.
	Regulus.....	....	32,2	46,0	59,5	13,8	27,3	41,2	9. 59. 59,78				59,73	23,83		10. 0. 23,43			T.
	δ Leonis.....	1,5	16,0	30,2	44,9	59,3	13,8	28,1	11. 5. 44,83				44,89	23,65		11. 6. 8,65			T.
	β Leonis.....	19,9	33,9	47,4	1,8	15,8	29,9	43,7	11. 41. 1,77				1,74	23,75		11. 41. 25,52			T.
	B.A.C. 4039.....	29,4	43,2	56,4	10,1	23,9	37,1	50,5	11. 50. 10,08				10,02			11. 50. 33,81			T.
	B.A.C. 4054.....	....	31,2	45,0	58,7	12,2	25,5	....	11. 52. 58,52				58,49			11. 53. 22,28			T.

ILLUMINATION EAST. From April 5, ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^s,344$, $-26^s,892$, $-13^s,573$, $-0^s,060$, $+13^s,618$, $+26^s,913$, $+40^s,337$. From April 5, $-40^s,337$, $-26^s,913$, $-13^s,618$, $+0^s,060$, $+13^s,573$, $+26^s,892$, $+40^s,344$.

(a) Extremely faint; no object near this. (b) The noted times have been increased by 30". (c) Between March 30 and April 5, observations with the Transit were suspended, the instrument undergoing alterations. (d) The counting was 10" slow. (e) All the wires, except I, have been diminished 10". (f) The counting was 10" fast. The N.P.D. of the star is uncertain. (g) All the wires, except I and II, have been diminished 10". (h) Observed for Hebe, which by mistake was looked for in its place for April 6. (i) Clouds had just cleared off. (k) Faint from cloud. (l) Cloudy; wires VI and VII without the dark glass. (m) Faint. (n) A star of equal magnitude and greater N.P.D. precedes. (o) Correction $-30''$ applied to all the wires except wire I. (p) Correction $+10''$ applied to the five last wires. (q) The noted times were 10" greater, and have been diminished conjecturally.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		1	II	III	IV	V	V	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h. m. s.	"	"				"			
Apr. 10	B.A.C. 4063. ....	....	5.4	19.1	32.6	46.2	59.7	....	11. 55. 32.60	+1.0	+1.4	-3.7	32.58		1.09	11. 55. 56.37	T.
	Bessel xi. 998.	11.1	24.7	38.0	51.5	5.1	18.5	32.0	11. 57. 51.55				51.51			11. 58. 15.30	T.		
	(a) Bessel xi. 1033.	44.0	57.3	10.4	24.7	38.0	51.3	5.0	12. 0. 24.39				24.35			12. 0. 48.15	T.		
	(b) Bessel xii. 64.	39.2	52.4	6.0	19.4	33.0	46.6	0.1	12. 4. 19.53				19.49			12. 4. 43.29	T.		
	Hebe.	10.0	23.7	37.3	51.4	5.4	19.1	32.9	12. 56. 51.40				51.35			12. 57. 15.19	T.		
	Spica.	14.3	28.1	41.4	55.5	9.3	22.8	36.4	13. 16. 55.40				55.34	23.98		13. 17. 19.19	T.		
Apr. 15	(c) δ Leonis. ....	....	....	....	....	54.3	8.7	23.1	11. 5. 39.76	-1.4	+2.7		39.91	28.58	0.95	11. 6. 8.50	T.
	(c) β Leonis.	14.8	28.9	42.6	56.5	11.0	....	....	11. 41. 56.71				56.87	28.60		11. 42. 25.48	T.
	(c) Arcturus.	38.7	53.1	7.3	21.7	36.2	50.3	4.6	14. 8. 21.70				21.85	28.73		14. 8. 50.56	T.		
Apr. 17	ε Hydræ.	39.0	52.6	6.0	19.5	33.4	46.8	0.3	8. 38. 19.66				19.82	30.33	1.02		T.		
	α Hydræ.	2.3	15.9	29.3	43.1	56.9	10.3	24.0	9. 19. 43.11				43.17	30.42			T.		
	Bessel ix. 692.	58.3	11.9	25.4	39.2	53.0	6.4	20.0	9. 30. 39.18				39.34			9. 31. 9.74	T.		
	Bessel ix. 749.	51.2	5.0	18.9	32.6	46.9	0.5	14.3	9. 33. 32.77				32.93			9. 34. 3.34	T.		
	(b) Bessel ix. 808. ....	....	51.0	....	18.4	32.2	46.0	59.3	9. 36. 18.50				18.66			9. 36. 49.07	T.
	Bessel ix. 872. ....	....	44.0	57.8	11.6	25.8	39.4	....	9. 39. 11.72				11.88			9. 39. 42.29	T.
	Bessel ix. 929.	29.8	43.4	57.4	11.4	25.7	39.3	53.2	9. 42. 11.45				11.61			9. 42. 42.02	T.		
	(d) Bessel ix. 1011.	33.2	47.0	0.3	....	27.7	....	54.8	9. 46. 14.02				14.18			9. 46. 44.60	T.
	(c) Polaris.	3.5	....	13.5	53.0	....	....	....	1. 3. 55.55				2.88			1. 4. 33.95	T.
	Apr. 18	⊙ 1 L.	1.4	15.0	28.4	42.3	56.3	10.2	23.3	1. 42. 42.41				42.58		1.04	1. 43. 13.70	T.	
⊙ 2 L.		11.2	25.1	38.8	52.5	6.3	20.2	33.8	1. 44. 52.56				52.73			1. 45. 23.86	T.		
α Hydræ. ....		....	....	28.3	42.2	55.8	9.5	23.0	9. 19. 42.18				42.24	31.33		9. 20. 13.69	T.
Regulus.		10.5	24.2	38.0	51.7	5.8	19.4	33.1	9. 59. 51.81				51.96	31.50		10. 0. 23.44	T.		
(b) Bessel x. 795.		25.7	39.0	52.3	5.9	19.4	32.9	46.3	10. 43. 5.93				6.08			10. 43. 37.60	T.		
Bessel x. 846.		56.8	9.9	23.3	36.9	50.6	4.1	17.5	10. 45. 37.02				37.17			10. 46. 8.69	T.		
(c) Bessel x. 910.		54.2	7.9	21.3	35.0	48.6	1.9	15.3	10. 49. 34.89				35.04			10. 50. 6.56	T.		
Bessel x. 964. ....		....	19.7	33.1	46.7	0.6	13.9	....	10. 52. 46.80				46.96			10. 53. 18.48	T.
H. C. 21226.		22.3	35.8	49.2	2.7	16.4	29.9	43.4	10. 56. 2.81				2.97			10. 56. 34.49	T.		
Bessel x. 1075.		11.3	25.1	38.5	52.4	6.2	20.0	33.4	10. 58. 52.41				52.57			10. 59. 24.10	T.		
Bessel xi. 18.		11.8	25.4	38.9	52.2	5.9	19.1	32.6	11. 1. 52.27				52.40			11. 2. 23.93	T.		
δ Leonis.		53.6	8.0	22.4	37.0	51.6	5.9	20.3	11. 5. 36.97				37.12	31.35		11. 6. 8.65	T.		
(f) Bessel xi. 592.		35.7	49.0	2.6	16.1	29.6	....	56.5	11. 33. 16.07				16.21			11. 33. 47.76	T.	
Bessel xi. 654.		8.9	22.5	35.7	49.2	3.0	16.3	29.8	11. 36. 49.35				49.50			11. 37. 21.05	T.		
B.A.C. 3996.		14.8	28.4	41.7	55.3	9.0	22.4	35.8	11. 40. 55.34				55.50			11. 41. 27.06	T.		
(g) Bessel xi. 779.		42.9	56.3	9.8	23.1	37.0	50.2	3.9	11. 44. 23.31				23.46			11. 44. 55.02	T.		
(h) Bessel xi. 895.		43.0	56.3	9.6	23.1	36.9	50.3	3.8	11. 51. 23.28				23.41			11. 51. 54.97	T.		
Bessel xi. 940. ....		....	47.1	0.4	14.1	27.9	41.1	....	11. 54. 14.12				14.28			11. 54. 45.85	T.
Bessel xi. 975. ....		....	58.4	11.8	25.4	39.0	52.4	....	11. 56. 25.40				25.55			11. 56. 57.12	T.
(i) H. C. 22755.		41.4	55.1	8.4	22.0	35.8	49.2	2.4	11. 59. 22.04				22.20			11. 59. 53.77	T.		
Bessel xii. 62. ....		....	....	49.1	2.9	16.5	29.9	43.6	12. 4. 2.87				2.95			12. 4. 34.52	T.
β Corvi. ....		....	31.7	46.2	0.8	15.8	30.2	44.6	12. 26. 0.94				0.93	31.75		12. 26. 32.52	T.
(k) Hebe.		29.1	43.3	57.0	....	25.0	38.6	52.3	12. 50. 10.87				11.02			12. 50. 42.63	T.	
Polaris SP.		15.0	....	24.5	8.5	49.0	24.3	....	13. 4. 7.89				0.18			13. 4. 31.80	T.
Spica.		6.6	20.1	33.8	47.5	1.3	14.9	28.4	13. 16. 47.52				47.56	31.79		13. 17. 19.18	T.		
Apr. 19		α Andromedæ.	34.1	49.2	4.6	20.0	35.2	50.7	0. 0. 4.67		+1.7		4.74	33.05	1.00	0. 0. 37.82	T.	
	Polaris.	57.5	....	....	49.0	35.0	....	....	1. 3. 51.13				56.39			1. 4. 29.51	T.
Apr. 20	(l) ⊙ 2 L. ....	....	....	3.0	16.9	30.5	44.5	58.1	1. 52. 16.84				16.95			1. 52. 50.11	T.
	δ Cancri.	53.6	7.7	21.9	36.0	50.2	4.6	18.7	8. 35. 36.10				36.20			8. 36. 9.64	T.		
	ε Hydræ.	35.9	49.5	2.9	16.4	30.3	43.7	57.1	8. 38. 16.54				16.65	33.46		8. 38. 50.09	T.		
	α Cancri.	2.3	16.2	29.7	43.6	57.5	11.3	25.0	8. 49. 43.66				43.77			8. 50. 17.22	T.		
	⊙ 1 L.	8.0	22.3	36.4	51.0	5.5	19.5	34.0	9. 21. 50.95				51.05			9. 22. 24.52	T.		
	Regulus.	8.5	22.3	36.0	49.9	4.0	17.6	31.3	9. 59. 49.95				50.05	33.38		10. 0. 23.55	T.		
	Spica.	4.7	18.2	31.9	45.6	59.5	12.8	26.5	13. 16. 45.60				45.61	33.75		13. 17. 19.24	T.		
Apr. 22	⊙ 1 L.	50.7	4.4	18.0	32.1	46.0	59.6	13.4	1. 57. 32.03				32.14			1. 58. 7.30	T.		
	(l) ⊙ 2 L.	1.4	15.0	....	....	....	10.2	24.1	1. 59. 42.66				42.77			2. 0. 17.93	T.

ILLUMINATION WEST. From April 15, ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^{\circ}337$, $-26^{\circ}913$, $-13^{\circ}618$, $+0^{\circ}060$, $+13^{\circ}573$, $+26^{\circ}892$, $+40^{\circ}344$. From April 15, $-40^{\circ}344$, $-26^{\circ}892$, $-13^{\circ}573$, $-0^{\circ}060$, $+13^{\circ}618$, $+26^{\circ}913$, $+40^{\circ}337$.

(a) 'A star of magnitude 8 and less N.P.D. preceded.' (b) Very faint. (c) Cloud. (d) Doubtful observation, the star being very faint from clouds. Wire I was written down 3.2. (e) 'A star of equal magnitude and the same R.A. was much lower in the field.' (f) 'One of equal magnitude and less N.P.D. followed about 13.' (g) 'A brighter of greater N.P.D. preceded about 8.' (h) Correction -10° applied to all the wires except I. (i) 'No star near this.' (k) Extremely faint. (l) Cloudy.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Apr. 24	Pollux.....	44,4	59,7	14,8	30,3	46,0	1,0	16,2	7.35.30,34	-1,4	+1,7	-3,1	30,43	37,23	1,05	7.36.7,67			T.
	Regulus.....	4,6	18,2	31,8	46,0	59,7	13,4	27,2	9.59.45,84				45,97	37,41		10.0.23,32			T.
	(a) Bessel x. 445....	9,2	23,0	..	50,4	..	..	31,0	10.24.50,26				50,40			10.25.27,77			T.
	(a) H. C. 20516....	..	..	55,2	..	22,9	..	..	10.28.9,03				9,17			10.28.46,54			T.
	(b) Bessel x. 576....	..	7,2	20,4	33,7	47,6	..	15,0	10.31.34,09				34,22			10.32.11,59			T.
	Bessel x. 658....	30,5	44,2	57,3	10,9	24,7	38,0	51,4	10.36.11,00				11,14			10.36.48,52			T.
	Bessel x. 718....	3,7	17,3	30,8	44,6	58,4	12,0	25,6	10.39.44,63				44,77			10.40.22,15			T.
	Bessel x. 776....	48,8	2,1	15,3	29,1	43,0	56,4	9,9	10.42.29,23				29,37			10.43.6,75			T.
	(c) Bessel x. 846....	..	4,0	17,3	31,0	44,7	58,2	..	10.45.31,04				31,17			10.46.8,55			T.
	Bessel x. 964....	0,0	13,4	27,1	40,3	54,2	7,6	21,2	10.52.40,54				40,68			10.53.18,07			T.
	H. C. 21226....	16,1	29,7	43,2	56,8	10,6	23,8	37,3	10.55.56,79				56,93			10.56.34,32			T.
	Bessel x. 1058....	..	..	42,6	56,1	9,5	22,9	36,4	10.57.56,04				56,17			10.58.33,56			T.
	Bessel xi. 18....	6,0	19,2	32,8	46,1	59,9	13,1	26,7	11.1.46,26				46,38			11.2.23,77			T.
	Bessel xi. 58....	..	31,6	45,2	58,4	12,1	25,7	39,1	11.3.58,63				58,75			11.4.36,14			T.
	(b) Bessel xi. 142....	47,6	1,0	14,2	28,1	..	..	8,2	11.8.27,93				28,05			11.9.5,45			T.
	H. C. 21626....	57,1	10,2	23,9	37,4	51,2	4,3	18,0	11.12.37,45				37,58			11.13.14,98			T.
	H. C. 21696....	..	..	19,5	32,9	46,9	0,2	13,8	11.15.33,17				33,31			11.16.10,71			T.
	Bessel xi. 329....	38,1	51,3	4,9	18,3	32,1	45,4	59,0	11.18.18,45				18,58			11.18.55,98			T.
	(d)(e) Bessel xi. 420....	14,2	27,4	41,2	..	8,3	..	35,0	11.23.54,59				54,72			11.24.32,13			T.
	B.A.C. 3962....	..	38,9	52,6	6,1	19,8	33,2	..	11.32.6,12				6,25			11.32.43,66			T.
	(d) Bessel xi. 654....	3,0	16,3	..	43,0	..	10,6	23,9	11.36.43,37				43,50			11.37.20,92			T.
	(d) β Leonis.....	6,1	20,1	33,8	48,1	..	16,1	29,7	11.40.48,00				48,13	37,28		11.41.25,55			T.
	(f) Hebe.....	..	9,3	23,3	36,9	51,0	5,3	19,3	12.45.37,24				37,36			12.46.14,83			T.
	δ Virginis.....	..	..	13,0	26,7	40,2	53,9	7,3	12.47.26,73				26,87			12.48.4,34			T.
	γ 1 L.....	28,0	41,6	55,3	9,2	23,0	37,1	50,8	13.2.9,29				9,39			13.2.46,87			T.
	H. C. 24624....	37,0	50,5	4,0	17,2	31,2	44,4	58,0	13.8.17,47				17,55			13.8.55,04			T.
	(g) Bessel xiii. 193....	25,1	39,0	52,6	6,2	20,2	34,1	47,7	13.11.6,42				6,46			13.11.43,95			T.
	B.A.C. 4471....	55,2	9,2	22,9	36,7	50,8	4,3	18,1	13.13.36,74				36,78			13.14.14,27			T.
	(h) Spica.....	0,3	14,2	28,0	41,6	55,7	9,3	22,7	13.16.41,68				41,72	37,65		13.17.19,21			T.
	(i) Bessel xiii. 321....	..	..	10,4	24,0	37,7	51,0	4,6	13.19.24,05				24,14			13.20.1,63			T.
	ζ Virginis.....	46,6	0,1	13,4	27,0	40,6	54,0	7,4	13.26.27,02				27,14			13.27.4,64			T.
	Arcturus.....	30,1	44,3	58,7	12,8	27,2	41,3	55,7	14.8.12,87				12,98	37,67		14.8.50,51			T.
	α Serpentis.....	36,0	49,7	3,1	16,6	30,5	44,0	57,6	15.36.16,79				16,93	37,46		15.36.54,52			T.
	Antares.....	52,1	7,2	22,0	37,2	52,3	7,1	22,1	16.19.37,15				37,16	37,51		16.20.14,79			T.
Apr. 25	\odot 1 L.....	2,2	16,0	29,7	43,9	57,8	11,5	25,3	2.8.43,77				43,90		1,03	2.9.21,98			T.
	\odot 2 L.....	13,5	27,2	41,0	54,8	9,2	22,6	36,6	2.10.54,99				55,12			2.11.33,20			T.
	(k) δ Leonis.....	46,6	1,0	15,2	29,7	44,4	58,6	13,2	11.5.29,82				29,93	38,47		11.6.8,40			T.
	Bessel xi. 479....	18,3	31,9	45,4	59,0	13,0	26,3	39,9	11.26.59,12				59,26			11.27.37,74			T.
	(l) H. C. 22079....	59,6	12,9	26,5	40,1	54,1	7,3	20,7	11.30.40,17				40,31			11.31.18,79			T.
	Bessel xi. 609....	26,6	39,9	53,2	6,8	20,4	33,6	47,2	11.34.6,82				6,95			11.34.45,44			T.
	Bessel xi. 654....	1,8	15,2	28,6	42,2	55,8	9,2	22,6	11.36.42,20				42,33			11.37.20,82			T.
	Bessel xi. 688....	..	..	..	42,0	55,6	9,1	22,4	11.38.41,98				42,12			11.39.20,61			T.
	β Leonis.....	..	..	32,7	46,7	0,9	14,6	28,7	11.40.46,78				46,91	38,49		11.41.25,40			T.
	(m) Bessel xi. 779....	36,1	49,2	2,6	16,2	29,8	43,2	56,6	11.44.16,24				16,38			11.44.54,87			T.
	B.A.C. 4030....	28,4	42,0	55,6	8,9	22,4	36,0	49,2	11.47.8,93				9,02			11.47.47,52			T.
	Bessel xi. 867....	9,8	23,3	36,4	50,1	3,8	17,1	30,6	11.49.50,15				50,25			11.50.28,75			T.
	Bessel xi. 920....	1,2	14,6	28,0	41,4	55,2	8,4	22,0	11.52.41,54				41,67			11.53.20,17			T.
	Bessel xi. 959....	..	47,0	0,3	13,6	27,3	40,8	..	11.55.13,80				13,91			11.55.52,41			T.
	Bessel xi. 997....	52,4	5,7	19,1	32,8	46,3	59,8	13,2	11.57.32,75				32,83			11.58.11,33			T.
	10 Virginis.....	42,3	55,9	9,3	22,6	36,3	49,8	3,1	12.1.22,75				22,88			12.2.1,39			T.
	(n) Bessel xii. 93....	11,0	24,3	38,1	51,6	5,0	18,2	31,9	12.5.51,44				51,56			12.6.30,07			T.
	Bessel xii. 138....	0,0	13,7	27,0	40,4	54,2	7,4	21,0	12.8.40,53				40,66			12.9.19,17			T.
	(o) Bessel xii. 208....	41,0	54,2	7,3	21,1	34,9	48,1	1,5	12.12.21,15				21,25			12.12.59,76			T.
	Bessel xii. 272....	45,2	58,8	12,1	25,7	39,4	52,9	6,3	12.16.25,77				25,85			12.17.4,37			T.
	Bessel xii. 308....	57,3	11,1	24,8	38,3	52,0	5,3	18,9	12.18.38,25				38,33			12.19.16,85			T.
	B.A.C. 4220....	51,0	4,3	17,8	31,2	45,1	58,2	11,7	12.22.31,33				31,43			12.23.9,95			T.
	β Corvi.....	10,2	24,8	39,3	54,1	8,9	23,2	38,0	12.25.54,07				54,08	38,58		12.26.32,60			T.
	(p) Bessel xii. 490....	..	19,1	32,6	46,0	59,7	13,0	..	12.28.46,08				46,19			12.29.24,72			T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',344, -26',892, -13',573, -0',060, +13',618, +26',913, +40',337.

(a) Too faint: could only be seen by glimpses on account of mist and twilight. (b) Observed with difficulty, being very faint. (c) 'A fainter of the same N.P.D. follows.' (d) Cloudy. (e) Seen only at intervals. (f) Extremely faint, but observed satisfactorily. (g) 'A fainter of less N.P.D. precedes.' (h) Bad definition. (i) Scarcely visible. (k) The noted times have been diminished by 8". (l) 'A star of equal magnitude and greater N.P.D. precedes about 24'.' (m) 'A brighter of greater N.P.D. precedes.' (n) 'A fainter of the same R.A. was higher in the field.' (o) 'Followed by a fainter of the same N.P.D.' (p) H. C. 23583 was looked for. This is H. C. 23584.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	s.	h.	m.	s.
Apr. 25	(a) Bessel XII. 569 ..	50,4	3,9	17,2	30,7	44,1	57,6	11,1	12.33.30,71	-1,4	+1,7	-3,1	30,81		1,03	12.34.9,34			T.
	Hebe	13,0	27,0	40,8	54,9	8,7	23,0	....	12.44.54,84				54,96			12.45.33,50			T.
	Polaris SP.....	....	....	10,0	52,5	44,0	15,5	....	13.8.15,50				30,77			13.4.30,77			T.
	(b) Spica	59,8	13,5	27,0	40,8	54,7	8,2	21,9	13.16.40,84				40,88	38,49		13.17.19,44			T.
	ζ Virginis	45,7	59,2	12,4	26,1	39,5	52,3	6,4	13.26.26,01				26,13			13.27.4,70			T.
	δ 1 L.....	42,3	56,4	10,2	24,3	38,4	52,1	6,1	13.54.24,26				24,32			13.55.2,91			T.
	δ 2 L.....	52,1	6,0	19,7	33,9	48,1	1,9	15,6	13.56.33,90				33,96			13.57.12,55			T.
Apr. 26	(d) β Corvi.....	9,2	24,1	38,6	53,1	7,8	22,1	36,9	12.25.53,11				53,12	39,54	0,98				T.
	(e) Polaris	56,3	33,0	....	45,5	....	1,0	38,0	1.3.47,10				51,45		0,98	1.4.31,47			T.
Apr. 27	(f) ☉ 1 L.....	32,2	46,1	0,0	13,9	28,1	41,8	55,6	2.16.13,96				14,09			2.16.54,16			T.
	☉ 2 L.....	43,6	57,3	11,1	25,2	39,5	53,1	7,0	2.18.25,26				25,39			2.19.5,46			T.
	(g) Aldebaran.....	56,0	9,9	24,0	38,0	52,2	6,1	20,0	4.26.38,03				38,15	40,06		4.27.18,31			T.
	α Orionis.....	41,3	55,1	8,4	22,1	36,0	49,2	2,9	5.46.22,14				22,28	40,21		5.47.2,50			T.
	α Hydræ.....	52,3	6,0	19,5	33,1	46,9	0,4	13,9	9.19.33,16				33,22	40,22		9.20.13,58			T.
	Regulus.....	1,6	15,2	28,9	42,7	56,9	10,4	24,3	9.59.42,86				42,99	40,35		10.0.23,38			T.
	(h) ε Bootis.....	....	....	....	....	2,2	17,2	32,2	14.37.46,74				46,82	40,82		14.38.27,40			T.
	(i) δ 2 L.....	25,1	39,6	52,9	8,2	22,5	36,7	51,0	15.41.8,15				8,17			15.41.48,79			T.
	β' Scorpii.....	21,6	35,8	49,9	4,1	18,4	32,8	47,0	15.56.4,23				4,25			15.56.44,88			T.
	δ Ophiuchi.....	9,4	23,2	36,4	50,0	3,7	17,2	30,4	16.5.50,04				50,14	40,67		16.6.30,78			T.
	(k) μ ¹ Sagittarii.....	....	....	52,7	7,1	....	36,2	50,0	18.4.7,13				7,14	(41,63)					B.
	(l) ☉ 1 L.....	....	....	....	....	0,3	14,1	28,1	2.23.46,27				46,39		1,04	2.24.28,43			T.
	☉ 2 L.....	15,6	29,8	43,7	57,7	11,9	25,7	39,7	2.25.57,73				57,85			2.26.39,90			T.
May 1	(h) α Serpentis.....	28,9	42,3	56,0	9,6	23,1	36,6	50,2	15.36.9,53	-1,1	+1,8		9,69	44,80	1,14				T.
May 2	(m) ☉ 1 L.....	26,0	40,0	53,6	7,2	22,1	36,0	50,0	2.35.7,85				8,00		1,07	2.35.53,44			T.
	☉ 2 L.....	38,1	52,1	5,9	20,0	34,1	48,4	2,0	2.37.20,08				20,23			2.38.5,67			T.
	Sirius.....	4,3	18,2	32,0	46,1	0,5	14,3	28,4	6.37.46,26				46,31	45,49		6.38.31,93			T.
	ε Hydræ.....	23,2	37,1	50,4	4,1	17,6	31,2	44,5	8.38.4,01				4,17	45,76		8.38.49,88			T.
	Regulus.....	56,1	9,9	23,4	37,4	51,4	5,1	18,7	9.59.37,43				37,58	45,70		10.0.23,35			T.
	(n) Bessel XI. 420...	....	18,2	32,2	45,6	59,4	12,4	....	11.23.45,56				45,71			11.24.31,54			T.
	Bessel XI. 479...	....	24,0	37,6	51,3	5,4	18,8	....	11.26.51,42				51,59			11.27.37,42			T.
	H. C. 22044....	35,0	48,5	2,0	15,5	29,5	42,9	56,4	11.29.15,59				15,75			11.30.1,58			T.
	Bessel XI. 568....	....	26,0	39,0	52,5	6,2	19,6	....	11.31.52,66				52,80			11.32.38,63			T.
	Bessel XI. 609...	....	32,4	45,9	59,2	13,0	26,4	....	11.33.59,38				59,54			11.34.45,38			T.
	(o) Bessel XI. 687...	....	53,2	7,2	21,1	34,8	47,6	....	11.38.20,78				20,94			11.39.6,78			T.
	Bessel XI. 701...	....	....	56,2	10,0	23,7	37,1	50,7	11.39.10,00				10,16			11.39.56,00			T.
	(p) Bessel XI. 779...	28,3	41,9	55,2	8,7	22,5	36,1	49,4	11.44.8,87				9,03			11.44.54,87			T.
	B.A.C. 4030....	21,2	34,4	47,7	1,4	15,2	28,4	42,0	11.47.1,47				1,58			11.47.47,42			T.
	Bessel XI. 867...	2,4	15,8	29,3	42,4	56,5	9,9	23,3	11.49.42,80				42,92			11.50.28,77			T.
	Bessel XI. 920...	53,7	7,0	20,3	34,0	47,9	1,1	14,5	11.52.34,07				34,23			11.53.20,03			T.
	Bessel XI. 997...	44,8	58,4	11,7	25,4	39,0	52,3	5,9	11.57.25,36				25,46			11.58.11,31			T.
	Bessel XI. 1032...	13,3	26,6	40,0	53,4	7,3	20,5	34,1	11.59.53,60				53,74			12.0.39,59			T.
	Bessel XII. 44....	13,8	27,2	40,5	54,3	7,9	21,4	34,8	12.2.54,27				54,38			12.3.40,24			T.
	(q) Bessel XII. 93...	3,9	17,2	30,8	44,2	57,7	11,1	24,6	12.5.44,21				44,35			12.6.30,21			T.
	(r) B.A.C. 4135.....	3,0	16,4	30,0	43,3	57,0	10,2	23,7	12.9.43,37				43,49			12.10.29,35			T.
	Bessel XII. 208...	33,7	47,0	0,2	13,5	27,3	40,7	54,2	12.12.13,80				13,92			12.12.59,78			T.
	Bessel XII. 249...	....	2,4	15,6	29,1	42,9	56,2	9,6	12.14.29,22				29,33			12.15.15,20			T.
	Bessel XII. 291...	42,7	56,2	9,4	23,1	36,7	50,2	3,4	12.17.23,10				23,21			12.18.9,08			T.
	β Corvi.....	3,1	17,4	32,0	46,6	1,4	15,6	30,5	12.25.46,66				46,70	45,93		12.26.32,57			T.
	Hebe .....	....	56,8	10,5	24,2	38,5	52,5	6,4	12.40.24,53				24,68			12.41.10,56			T.
	Spica	52,4	6,1	19,4	33,2	47,1	0,6	14,4	13.16.33,31				33,37	46,01		13.17.19,28			T.
	ε Bootis.....	56,0	11,3	26,3	41,4	57,0	12,1	27,3	14.37.41,63				41,74	45,93		14.38.27,71			T.
	α ² Libræ.....	9,1	23,1	36,6	50,8	5,2	18,8	33,0	14.41.50,94				50,98	46,04		14.42.36,96			T.
	(s) α Serpentis.....	27,4	41,3	54,8	8,3	22,1	35,3	49,1	15.56.8,33				8,49	46,01		15.56.54,51			T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

(a) 'The most southern of three of equal magnitude.' (b) Corrected by -1', the counting being 1' fast. (c) Dense mist drifting. 2 L. was not full. (d) Bad definition and irregular motion; dense clouds passing. (e) Tremulous; wire VII doubtful. (f) Bad definition and unsteadiness. (g) Too much motion. (h) Cloudy. (i) Thick cloud; the Moon faint at times. (k) The noted times were 31' greater. Not used for clock-error. (l) No clock-stars could be observed. (m) Waving and difficult to observe. (n) Very faint. (o) Wire IV was set down 20,1 and has been altered conjecturally. (p) The counting was 1' in advance of the clock. 'A brighter of greater N.P.D. precedes.' (q) 'The northern and brighter of two.' (r) 'The north-following of two of equal magnitude.' (s) The last four wires have been diminished 30'.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
May 2	(a) Iris .....	....	....	....	45,0	....	....	....	15.45.45,06	-1,1	+1,8	-3,1	45,09		1,07	15.46.31,11			T.
May 3	(b) ☉ 2 L.	26,3	41,0	54,8	8,8	23,0	36,9	51,0	2.41.8,83			-2,9	8,99		1,04	2.41.55,41			T.
	(c) ν Virginis	42,5	56,0	9,4	23,1	36,9	50,2	3,7	11.37.23,11				23,28			11.38.10,08			T.
	β Leonis	56,5	10,2	24,3	38,4	52,6	6,4	20,4	11.40.38,40				38,56	46,77		11.41.25,36			T.
	(d) Bessel XII. 779...	27,5	40,9	54,2	7,7	21,3	34,9	48,3	11.44.7,83				8,00			11.44.54,81			T.
	(e) B.A.C. 4030.	19,2	....	46,2	....	14,3	27,6	41,1	11.47.0,26				0,38			11.47.47,19			T.
	Bessel XI. 920.	52,3	5,9	19,5	33,1	46,8	0,2	13,5	11.52.33,04				33,21			11.53.20,02			T.
	Bessel XI. 975.	29,5	43,2	56,6	10,0	23,6	37,0	50,5	11.56.10,05				10,22			11.56.57,04			T.
	H. C. 22755.	26,3	39,5	53,0	6,5	20,4	33,6	47,2	11.59.6,64				6,82			11.59.53,64			T.
	Bessel XII. 44.	13,1	26,3	39,7	53,4	7,1	20,4	34,0	12.2.53,43				53,55			12.3.40,37			T.
	Bessel XII. 93.	2,7	16,2	29,8	43,2	56,9	10,2	23,6	12.5.43,23				43,38			12.6.30,20			T.
	Bessel XII. 128.	13,1	26,6	40,2	53,7	7,5	20,8	34,5	12.7.53,77				53,87			12.8.40,69			T.
	(f) Bessel XII. 208.	32,5	45,8	59,0	12,7	26,4	39,9	53,2	12.12.12,78				12,92			12.12.59,75			T.
	(e) Bessel XII. 272.	36,9	50,3	3,8	17,2	31,0	44,2	....	12.16.17,31				17,43			12.17.42,26			T.
	(g) β Corvi.	2,1	16,5	31,0	45,3	0,3	15,0	29,3	12.25.45,64				45,69	46,94		12.26.32,53			T.
	(h) Hebe.	8,8	22,9	36,2	50,2	....	18,2	32,2	12.39.50,43				50,59			12.40.37,44			T.
	Bessel XII. 845. ....	....	55,6	9,3	23,2	37,0	50,6	....	12.48.23,14				23,22			12.49.10,07			T.
	46 Virginis	26,7	40,2	53,6	7,1	20,8	34,1	47,6	12.52.7,16				7,30			12.52.54,16			T.
	Bessel XII. 953. ....	....	....	17,5	31,2	44,7	58,2	11,6	12.54.31,18				31,31			12.55.18,17			T.
	(i) Bessel XII. 994. ....	....	29,1	42,9	56,4	10,9	24,3	....	12.56.56,72				56,79			12.57.43,65			T.
	(k) γ Virginis.	36,3	50,0	3,5	17,3	31,1	44,6	58,2	12.59.17,29				17,37			13.0.42,23			T.
	(l) Bessel XIII. 37.	2,4	16,0	29,3	43,1	57,2	10,3	24,1	13.2.43,20				43,28			13.3.30,14			T.
	Bessel XIII. 92.	47,0	0,3	13,8	27,3	41,2	54,4	8,0	13.5.27,43				27,55			13.6.14,42			T.
	H. C. 24624.	27,7	41,2	54,6	8,1	21,9	35,2	48,6	13.8.8,19				8,31			13.8.55,18			T.
	Bessel XIII. 193.	16,0	29,6	43,3	57,1	11,1	24,7	38,4	13.10.57,17				57,24			13.11.44,11			T.
	B.A.C. 4471.	46,3	0,0	13,6	27,5	41,4	55,0	8,7	13.13.27,50				27,57			13.14.14,44			T.
	Spica.	51,3	5,1	18,5	32,3	46,1	59,4	13,4	13.16.32,30				32,38	47,00		13.17.19,25			T.
	Bessel XIII. 321.	34,3	47,6	0,8	14,5	28,2	41,5	55,1	13.19.14,57				14,69			13.20.15,77			T.
	(m) Bessel XIII. 363. ....	....	13,2	26,7	40,4	54,8	8,4	....	13.21.40,70				40,76			13.22.27,64			T.
	(n) Bessel XIII. 427.	9,3	23,1	36,6	50,2	4,0	17,5	31,1	13.24.50,25				50,35			13.25.37,23			T.
	Bessel XIII. 490.	16,0	29,8	43,6	57,7	11,8	25,3	39,2	13.27.57,63				57,69			13.28.44,57			T.
	(o) Arcturus.	21,0	35,0	49,1	3,5	18,2	32,3	46,6	14.8.3,67				3,82	46,86		14.8.50,73			T.
	(p) ε Bootis. ....	....	....	25,3	40,7	56,2	....	26,4	14.37.40,76				40,88	46,80		14.38.27,81			T.
May 4	Spica. ....	....	....	....	....	45,2	58,5	12,4	13.16.31,28				31,36	48,01	1,10				T.
	(g) Arcturus.	19,3	34,1	48,1	2,3	16,9	31,2	45,5	14.8.2,48				2,63	48,06					T.
May 9	δ Leonis.	32,2	46,5	0,9	15,5	30,2	44,3	58,7	11.5.15,47				15,61	52,62	0,96	11.6.8,25			T.
	β Leonis. ....	....	....	....	....	46,2	0,3	14,4	11.40.32,35				32,51	52,97		11.41.25,18			T.
	β Corvi.	56,2	10,7	25,2	39,7	54,5	8,9	23,4	12.25.39,80				39,85	52,74		12.26.32,55			T.
	Polaris SP.	58,5	....	10,5	55,5	34,0	6,0	40,5	13.3.51,89				46,49						T.
	Spica.	45,3	59,1	12,9	26,4	40,2	54,0	7,6	13.16.26,50				26,58	52,78		13.17.19,31			T.
	Bessel XIII. 674.	49,9	3,3	17,1	31,1	45,1	58,5	12,3	13.38.31,04				31,11			13.39.23,86			T.
	Bessel XIII. 750.	2,6	16,5	30,2	43,9	58,0	11,4	25,2	13.42.43,97				44,04			13.43.36,79			T.
	B.A.C. 4647.	34,3	48,2	1,5	15,2	29,0	42,3	56,0	13.46.15,21				15,31			13.47.8,06			T.
	B.A.C. 4666.	38,9	52,3	5,8	19,3	33,2	46,7	0,2	13.51.19,49				19,59			13.52.12,34			T.
	Bessel XIII. 973.	25,5	39,1	53,0	6,6	20,8	34,2	48,1	13.55.6,76				6,83			13.55.59,59			T.
	95 Virginis. ....	....	28,9	42,3	56,1	9,8	23,3	....	13.57.56,08				56,16			13.58.48,92			T.
	Bessel XIII. 1089.	37,2	50,6	4,2	17,9	31,3	44,9	58,2	14.0.17,76				17,86			14.1.10,62			T.
	(r) Arcturus.	15,2	29,3	43,5	58,0	12,2	26,4	40,8	14.7.57,92				58,07	52,63		14.8.50,84			T.
	ε Bootis.	49,3	4,6	19,6	34,9	50,6	5,5	20,6	14.37.35,01				35,13	52,57		14.38.27,92			T.
May 10	(s) ☉ 1 L.	10,5	24,3	38,2	52,9	7,2	21,2	35,4	3.5.52,81				52,96		1,11	3.6.46,17			T.
	☉ 2 L.	24,0	38,0	52,0	6,2	20,6	34,8	48,8	3.8.6,34				6,49			3.8.59,70			T.
	(e) Spica.	44,6	58,2	11,8	25,5	39,4	53,1	6,5	13.16.25,59				25,67	53,69		13.17.19,35			T.
	(e) Arcturus.	14,1	28,2	42,4	56,9	11,4	25,5	39,9	14.7.56,92				57,07	53,63		14.8.50,79			T.
	ε Bootis.	48,2	3,2	18,4	33,7	49,2	4,2	19,4	14.37.33,75				33,87	53,84		14.38.27,62			T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40^s.844, -26^s.892, -13^s.573, -0^s.060, +13^s.618, +26^s.913, +40^s.337.

(a) The observer was doubtful whether it was taken at the 3rd or 4th wire. Too faint to be seen at the other wires. (b) The first limb was clouded.
 A spot was observed to pass wires IV and V at 2.40.42 and 2.40.18,2. The counting for 2 L. was 1^s short. (c) Clouds had just cleared off.
 (d) 'The north-following and fainter of two.' (e) Cloudy. (f) The counting was 10^s in advance of the clock. 'A very faint object of the same N.P.D. followed.' (g) Corrected by -2^s for error of counting. (h) Clouded at Wire V. 'The Planet is now of Mag. 9.10.' (i) 'One of equal magnitude and nearly the same N.P.D. preceded.' (k) Corrected by -1^s for error of counting. (l) Corrected by +1^s for error of counting.
 (m) Observed hurriedly. (n) 'The following of two of equal magnitude 13^s apart.' (o) Good definition. (p) Dense cloud. (q) Flaring.
 (r) The noted times were 1^s in defect. (s) 'Two spots passed wire V at 3.6.43,5 and 3.6.53,0.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
May 11	δ Leonis.....	30,1	44,4	58,5	13,2	28,0	42,2	56,6	11. 5. 13,27	-1,1	+1,8	-2,9	13,41	54,80	1,25	11. 6. 8,24	T.		
	(a) β Corvi.....	....	8,4	22,9	37,2	52,3	6,8	21,2	12. 25. 37,52				37,57	55,01		12. 26. 32,47	T.	
	(b) Hebe.....	18,0	31,8	45,5	0,0	14,1	28,0	....	12. 35. 59,85				0,01			12. 36. 54,92	T.	
	(c) 58 Virginis.....	1,7	15,3	23,8	42,5	56,2	9,8	23,4	13. 8. 42,53				42,61			13. 9. 37,54	T.		
	(c) Spica.....	43,4	57,0	10,6	24,3	38,2	51,3	5,4	13. 16. 24,31				24,39	54,97		13. 17. 19,33	T.		
	(d) Iris.....	14,4	29,1	43,6	58,1	13,3	27,4	42,6	15. 36. 58,36				58,41			15. 37. 53,47	T.		
	δ Ophiuchi.....	....	8,9	22,3	35,9	49,4	2,9	16,3	16. 5. 35,88				36,01	55,02		16. 6. 31,10	T.	
	(e) Antares.....	....	....	....	19,4	35,3	49,8	5,1	16. 19. 19,89				19,94	55,07		16. 20. 15,04	T.
May 12	(f) Polaris.....	....	....	58,0	40,5	....	....	....	1. 3. 40,80				45,82		1,16		T.
May 13	(c)(g) ⊙ 1 L.....	....	....	19,4	33,7	48,2	2,2	16,3	3. 17. 33,75				33,90			3. 18. 30,72	T.
	⊙ 2 L.....	4,9	19,3	33,3	47,5	2,0	....	30,1	3. 19. 47,59				47,74			3. 20. 44,56	T.	
May 17	(c) ⊙ 1 L.....	33,9	47,9	2,0	16,2	30,9	45,0	59,2	3. 33. 16,44	-1,1	+1,7	-3,5	16,56		1,13	3. 34. 17,66	T.		
	⊙ 2 L.....	48,1	2,2	16,2	30,8	45,3	59,2	13,4	3. 35. 30,74				30,86			3. 36. 31,96	T.		
May 18	(h) β Corvi.....	....	1,0	15,2	29,9	44,3	59,0	13,5	12. 25. 29,87				29,88	62,64		12. 26. 32,52	T.	
	(i) Polaris SP.....	56,0	34,5	6,0	50,0	....	2,0	39,0	13. 3. 48,04				41,86				T.	
	(k) Arcturus.....	5,2	19,2	33,4	48,2	2,4	16,3	30,8	14. 7. 47,93				48,05	62,65		14. 8. 50,78	T.		
	(c) α Coronæ.....	....	....	....	....	34,3	49,2	4,3	15. 27. 18,94				19,04	62,86		15. 28. 21,83	T.
	α Serpentis.....	11,2	24,5	38,2	51,9	5,4	18,5	32,3	15. 35. 51,71				51,85	62,82		15. 36. 54,64	T.		
May 19	β Leonis.....	39,4	53,6	7,2	21,4	35,4	49,3	3,2	11. 40. 21,35			+2,6	21,53	63,64	1,09	11. 41. 25,28	T.		
	(l) Arcturus.....	3,4	18,1	32,2	46,4	1,2	15,1	29,8	14. 7. 46,60				46,78	63,92		14. 8. 50,64	T.		
	α Coronæ.....	32,4	47,3	2,4	17,9	33,1	47,9	3,2	15. 27. 17,75				17,91	64,00		15. 28. 21,83	T.		
	α Serpentis.....	10,1	23,4	37,0	50,6	4,2	17,5	31,2	15. 35. 50,57				50,75	63,93		15. 36. 54,68	T.		
May 20	ν Virginis.....	24,2	37,7	51,2	4,8	18,5	32,1	45,4	11. 37. 4,84				5,02		1,08	11. 38. 9,81	T.		
	β Virginis.....	8,4	22,1	35,4	49,0	2,6	16,0	29,4	11. 41. 48,99				49,16			11. 42. 53,96	T.		
	(m) ⊙ 1 L.....	35,4	49,2	3,0	16,7	30,5	44,5	58,2	11. 52. 16,79				16,96			11. 53. 21,76	T.		
	η Virginis.....	30,0	43,4	56,5	10,2	23,9	37,3	50,4	12. 11. 10,24				10,40			12. 12. 15,22	T.		
	(n) γ Virginis.....	19,7	32,9	46,3	59,8	13,5	27,0	40,5	12. 32. 59,96				0,12			12. 34. 4,95	T.		
	(o) Polaris SP.....	56,5	32,0	6,5	49,0	27,5	57,0	36,0	13. 3. 46,36				38,39				T.		
	Spica.....	33,4	47,1	0,4	14,3	28,2	41,5	55,2	13. 16. 14,30				14,37	64,96		13. 17. 19,24	T.		
	(p) Iris.....	....	17,2	31,2	46,0	0,9	15,2	....	15. 27. 46,10				46,13			15. 28. 51,10	T.
	α Serpentis.....	9,1	22,4	36,0	49,5	3,3	16,7	30,2	15. 35. 49,60				49,78	64,91		15. 36. 54,75	T.		
	δ Ophiuchi.....	45,6	59,1	12,3	26,0	39,6	53,0	6,6	16. 5. 26,03				26,16	64,97		16. 6. 31,15	T.		
May 21	⊙ 1 L.....	24,3	39,0	53,1	7,4	22,1	36,1	50,6	3. 49. 7,52				7,70		1,16	3. 50. 13,24	T.		
	⊙ 2 L.....	39,5	54,0	8,2	23,0	37,3	51,4	6,0	3. 51. 22,77				22,95			3. 52. 28,50	T.		
	(q) Sirius.....	43,7	57,9	11,7	25,7	40,0	53,8	8,0	6. 37. 25,83				25,87	65,73		6. 38. 31,55	T.		
	Castor.....	7,2	23,2	38,8	54,9	10,9	26,6	42,5	7. 23. 54,87				55,03	65,75		7. 25. 0,75	T.		
	(q)(r) Procyon.....	....	53,6	6,9	20,5	34,2	47,6	1,2	7. 30. 20,57				20,75	65,67		7. 31. 26,47	T.	
	Pollux.....	....	....	46,0	1,5	16,8	32,1	47,2	7. 35. 1,43				1,59	65,70		7. 36. 7,32	T.
	(s) γ Virginis.....	18,2	31,9	45,4	58,5	12,3	25,8	39,2	12. 32. 58,76				58,91			12. 34. 4,88	T.		
	⊙ 1 L.....	44,0	57,4	11,2	25,1	39,1	53,0	6,3	12. 44. 25,16				25,30			12. 45. 31,28	T.		
	(t) Polaris SP.....	59,0	36,0	....	....	29,0	....	....	13. 3. 48,93				40,96				T.
	(t) θ Virginis.....	....	....	....	....	20,2	33,6	47,1	13. 1. 6,59				6,70			13. 2. 12,69	T.
May 22	(u) Polaris SP.....	57,8	35,3	3,8	50,5	30,8	0,0	38,8	13. 3. 48,14				40,17		1,17		B.		
	Spica.....	30,8	44,4	58,2	12,0	25,9	39,3	53,0	13. 16. 11,94				12,01	67,31		13. 17. 19,33	B.		
	⊙ 1 L.....	3,8	17,3	31,1	45,1	59,2	13,0	26,8	13. 35. 45,19				45,30			13. 36. 52,63	B.		
	Bessel xiii. 1070.....	....	48,2	1,9	15,7	29,8	43,0	....	13. 59. 15,72				15,78			14. 0. 23,13	B.
	κ Virginis.....	7,6	21,0	34,7	48,2	2,2	15,8	29,2	14. 3. 48,39				48,46			14. 4. 55,82	B.		
	(x) Arcturus.....	0,4	14,8	28,8	43,2	57,8	11,9	26,2	14. 7. 43,30				43,47	67,23		14. 8. 50,83	B.		
	(y) λ Virginis.....	....	27,0	40,2	54,3	8,4	22,0	....	14. 9. 54,38				54,43			14. 11. 1,79	B.
	(z) Iris.....	6,0	21,0	35,1	....	4,2	....	34,1	15. 25. 49,87				49,90			15. 26. 57,32	B.
	α Serpentis.....	6,4	19,9	33,2	47,1	0,9	14,1	27,7	15. 35. 47,04				47,22	67,49		15. 36. 54,65	B.		

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40",344, -26",892, -13",573, -0",060, +13",618, +26",913, +40",337.

(a) Badly defined. (b) Not good; disappearing at times. 'There was another object of the same magnitude and nearly the same R.A., and of greater N.P.D. by about 3'. (c) Cloudy. (d) Extremely faint. (e) A mere patch of light. (f) Ill at the other wires. (g) 'Two spots passed wire VII at 3.18.24.3 and 3.18.32.6.' See May 10. (h) Faint from cloud. (i) Cloudy at the last three wires. (j) Blazing. (k) Disturbance. (m) So much noise that the beat of the clock was often inaudible. (n) 'The components have the same R.A.' (o) 'Very good.' (p) Extremely faint and at times disappearing. (q) Great motion. (r) All the wires, except II, have been diminished 30". (s) Corrected by +11" for error of counting. (t) Cloud. (u) 'Badly defined, but pretty good observation.' (x) Flaring. (y) Corrected by +19" for error of counting. (z) Faint.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"							
May 22	Antares.....	22,6	37,8	52,6	7,7	22,8	37,3	52,6	16. 19. 7,63	-1,1	+2,6	-3,5	7,64	67,53	1,17	16. 20. 15,11			B.
May 24	(a) ☉ 1 L.....	23,2	37,7	52,1	6,1	20,7	35,2	49,7	4. 1. 6,39		+2,0		6,52		1,15	4. 2. 15,64			B.
	☉ 2 L.....	39,1	....	....	....	37,0	51,0	....	4. 3. 22,30				22,43			4. 4. 31,55			B.
	Arcturus.....	58,0	12,1	26,7	41,0	55,2	9,7	23,9	14. 7. 40,94				41,08	69,61					B.
	(b) Bessel xiv. 498..	29,0	43,0	57,1	....	24,2	....	51,1	14. 26. 10,35				10,39			14. 27. 20,01			B.
	(c) Bessel xiv. 607..	18,3	32,1	....	....	....	....	....	14. 31. 59,73				59,76			14. 33. 9,39			B.
May 25	(d) ☉ 1 L.....	....	38,4	52,8	7,2	22,0	36,1	50,8	4. 5. 7,33			-3,8	7,45		1,14	4. 6. 17,73			B.
	☉ 2 L.....	39,9	54,1	8,7	23,0	38,0	52,0	6,8	4. 7. 23,21				23,33			4. 8. 33,62			B.
	α Orionis.....	11,0	24,5	38,1	51,9	5,7	19,0	32,8	5. 45. 51,85				51,99	70,36					B.
May 27	(e) ☉ 1 L.....	26,7	41,1	55,8	10,1	25,0	39,1	53,9	4. 13. 10,24				10,36		1,13	4. 14. 22,84			B.
	☉ 2 L.....	43,0	57,1	11,2	26,1	41,0	55,1	9,4	4. 15. 26,13				26,25			4. 16. 38,73			B.
	(a) Polaris.....	42,5	....	....	30,0	14,0	....	....	1. 3. 32,23				39,04			1. 4. 52,50			B.
May 28	(f) ☉ 1 L.....	....	....	....	....	27,0	41,3	56,0	4. 17. 12,39				12,51			4. 18. 26,12			B.
	(a) ☉ 2 L.....	....	59,7	13,8	28,1	43,0	....	12,0	4. 19. 28,43				28,55			4. 20. 42,21			B.
	β Leonis.....	....	43,0	56,9	10,9	25,1	39,0	....	11. 40. 10,98				11,12	73,95		11. 41. 25,08			B.
	Polaris SP.....	55,5	31,8	2,5	48,8	25,7	56,7	36,2	13. 3. 45,31				38,05			13. 4. 52,07			B.
	Spica.....	24,0	37,9	51,2	5,1	18,9	32,6	46,1	13. 16. 5,11				5,14	74,15		13. 17. 19,18			B.
	(g) Bessel xiii. 801..	7,6	23,1	36,6	49,8	4,1	17,4	31,1	13. 45. 49,96				49,97			13. 47. 4,03			B.
	Bessel xiii. 878..	14,9	28,1	41,8	55,2	9,0	22,1	35,9	13. 49. 55,29				55,36			13. 51. 9,42			B.
	(h) H. C. 26410.....	....	45,5	....	13,2	27,6	41,1	55,2	14. 19. 13,28				13,28			14. 20. 27,36			B.
	H. C. 26504.....	8,2	22,5	36,3	50,2	4,8	18,8	32,9	14. 22. 50,52				50,52			14. 24. 4,61			B.
	Bessel xiv. 1023..	34,9	49,0	2,2	16,3	30,6	44,2	58,0	14. 53. 16,46				16,47			14. 54. 30,58			B.
	(c) H. C. 27717.....	48,8	....	18,7	....	45,8	59,2	13,2	15. 4. 31,51				31,51			15. 5. 45,63			B.
	α Serpentis.....	59,9	13,2	26,9	40,2	54,1	7,4	21,0	15. 35. 40,38				40,52	74,22		15. 36. 54,67			B.
	γ Aquilæ.....	13,8	27,1	40,9	54,8	8,5	22,1	35,7	19. 37. 54,70				54,84	74,33		19. 39. 9,18			B.
	α Aquilæ.....	....	48,0	1,2	14,7	28,7	42,1	55,6	19. 42. 14,92				15,07	74,19		19. 43. 29,41			B.
	β Aquilæ.....	3,1	16,8	30,0	43,7	57,2	10,9	24,1	19. 46. 43,69				43,83	74,28		19. 47. 58,17			B.
May 29	(i) ☉ 2 L.....	47,9	....	16,8	31,1	46,2	0,1	15,1	4. 23. 31,37				31,48		1,22	4. 24. 46,18			B.
	Polaris SP.....	....	33,0	3,7	48,8	26,0	59,7	....	13. 3. 46,29				39,03			13. 4. 54,17			B.
	Spica.....	22,9	36,8	50,2	4,0	17,9	31,4	44,9	13. 16. 4,01				4,04	75,25		13. 17. 19,19			B.
	Bessel xiii. 674..	27,1	41,1	54,4	8,2	22,2	36,0	....	13. 38. 8,38				8,40			13. 39. 23,57			B.
	Bessel xiii. 750..	40,1	53,9	7,6	21,2	35,4	48,9	2,9	13. 42. 21,43				21,45			13. 43. 36,63			B.
	(g) Bessel xiii. 801..	5,9	21,8	....	48,3	....	16,4	29,8	13. 45. 48,45				48,46			13. 47. 3,64			B.
	(k) Bessel xiii. 870..	37,2	51,1	4,2	18,0	31,2	45,0	58,2	13. 49. 17,85				17,92			13. 50. 33,10			B.
	(l) H. C. 25979.....	6,6	20,1	34,1	48,3	2,6	16,4	30,3	14. 1. 48,35				48,35			14. 3. 3,54			B.
	H. C. 26054.....	2,1	16,2	30,1	44,1	58,9	12,2	26,7	14. 4. 44,33				44,34			14. 5. 59,53			B.
	Arcturus.....	52,4	6,6	21,0	35,2	49,8	3,9	18,2	14. 7. 35,30				35,43	75,24		14. 8. 50,63			B.
	H. C. 26210.....	35,1	49,4	3,2	17,7	32,1	46,1	0,1	14. 11. 17,67				17,67			14. 12. 32,87			B.
	H. C. 26541.....	50,1	4,2	18,3	32,7	46,8	1,1	15,3	14. 24. 32,64				32,65			14. 25. 47,86			B.
	Bessel xiv. 548..	3,9	17,3	31,0	45,1	59,1	13,0	26,9	14. 28. 45,19				45,20			14. 30. 0,41			B.
	H. C. 26746.....	8,2	22,9	37,1	51,8	6,0	20,1	34,6	14. 32. 51,53				51,53			14. 34. 6,75			B.
	ε Bootis.....	26,8	42,0	57,1	12,1	27,9	43,0	58,1	14. 37. 12,43				12,53	75,18		14. 38. 27,75			B.
	α ² Libræ.....	40,0	54,0	7,9	22,0	36,1	50,0	3,8	14. 41. 21,97				21,97	75,17		14. 42. 37,20			B.
	(m) Iris.....	8,8	24,2	40,8	....	8,6	....	38,0	15. 18. 53,85				53,85			15. 20. 9,11			B.
	Antares.....	15,1	30,1	45,0	59,9	15,1	29,9	45,0	16. 19. 0,02				0,00	75,26		16. 20. 15,31			B.
May 30	☉ 2 L.....	50,9	5,3	20,0	34,1	49,0	3,7	18,1	4. 27. 34,44				34,57		1,27	4. 28. 50,71			B.
	(n) α Orionis.....	5,3	18,8	32,1	46,0	....	....	....	5. 45. 45,93				46,07	76,29					B.
	(o) Spica.....	21,8	35,3	49,0	2,7	....	....	43,8	13. 16. 2,76				2,79	76,50					B.
May 31	(e) ☉ 1 L.....	37,8	52,0	6,4	21,1	36,1	51,0	5,1	4. 29. 21,35				21,47		1,26	4. 30. 38,73			B.
	☉ 2 L.....	54,3	9,0	23,2	38,0	53,0	7,0	21,7	4. 31. 38,03				38,15			4. 32. 55,41			B.
June 1	☉ 1 L.....	41,1	56,0	9,8	24,8	39,5	54,1	8,8	4. 33. 24,87	-0,7	+1,7	-3,1	25,02			4. 34. 43,54			B.
	☉ 2 L.....	58,0	12,2	27,0	41,1	56,2	10,4	25,0	4. 35. 41,41				41,56			4. 37. 0,08			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40°,344, - 26°,892, - 13°,573, - 0°,060, + 13°,618, + 26°,913, + 40°,337.

(a) Very cloudy. (b) Faint, the shutter intercepting. (c) Cloud. (d) The counting was 1^s short. Extremely high wind. (e) No clock-stars could be observed. (f) Without the dark glass. (g) Very faint. (h) 'A brighter of nearly the same R.A. was higher in the field.' (i) 1 L. hid by cloud. (k) 'A brighter followed higher in the field.' (l) Corrected by - 9^s for error of counting. (m) Very faint: the intervals are irregular. (n) Cloudy. (o) Failure of the pencil.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"		s.	s.	s.	h.	m.	s.
June 1	α Orionis.....	3,1	16,0	29,7	43,2	57,2	10,8	24,3	5.45.43,47	-0,7	+1,7	-3,1	43,66	78,71	1,26	5.47.22,4			B.
	Polaris SP.....	....	31,0	....	46,3	22,0	56,0	....	13.3.43,34				36,79			13.4.55,75			B.
	(a) Parthenope.....	42,2	56,6	10,9	24,6	38,7	52,0	6,1	15.1.24,44				24,53			15.2.43,60			B.
	Bessel xv. 132... ..	0,0	13,7	27,0	41,0	54,7	8,1	21,9	15.6.40,91				41,00			15.8.0,07			B.
	Iris.....	24,1	40,1	54,2	9,1	23,1	38,1	52,2	15.16.8,70				8,77			15.17.27,85			B.
	α Coronæ.....	17,4	32,6	47,7	2,9	18,1	33,1	48,1	15.27.2,84				2,98	78,97		15.28.22,07			B.
	α Herculis.....	....	....	17,0	31,1	45,1	59,1	13,0	17.6.31,17				31,34	79,09		17.7.50,52			B.
	μ Sagittarii.....	47,1	1,0	15,9	30,3	45,0	59,0	15,4	18.3.30,24				30,30	79,29		18.4.49,53			B.
June 2	(b) Parthenope.....	57,0	11,2	24,7	38,2	52,8	6,2	19,8	15.0.38,56				38,65		1,35	15.1.59,03			B.
	δ Ophiuchi.....	30,2	43,9	57,1	10,7	24,1	37,8	51,0	16.5.10,68				10,83	80,41					B.
	Antares.....	9,7	24,9	39,6	54,4	10,1	24,8	39,8	16.18.54,76				54,82	80,48					B.
	γ 2 L.....	28,0	41,3	55,4	9,3	23,9	37,7	51,7	23.2.9,62				9,71		1,38	23.3.30,55			B.
	α Andromedæ....	32,1	47,2	2,8	17,8	33,6	48,7	4,0	23.59.18,03				18,17	80,78		0.0.39,07			B.
	(c) Polaris.....	41,0	20,0	48,0	24,0	13,0	....	20,0	1.3.29,80				35,94			1.4.56,90			B.
	(d) Aldebaran.....	15,1	29,0	43,0	57,0	11,2	25,1	39,0	4.25.57,06				57,23	81,13		4.27.18,38			B.
June 3	\odot 2 L.....	7,0	21,9	36,1	51,1	5,8	20,1	34,9	4.43.50,98				51,13			4.45.12,30			B.
	(e) α Orionis.....	0,1	14,0	27,2	41,0	55,0	8,1	21,9	5.45.41,04				41,23	81,15		5.47.2,46			B.
	Arcturus.....	45,8	0,1	14,2	28,7	43,3	57,4	11,8	14.7.28,76				28,92	81,72		14.8.50,63			B.
	(f) ϵ Bootis.....	....	....	....	6,0	21,1	36,1	51,1	14.37.5,75				5,89	81,80		14.38.27,63			B.
	α Libræ.....	33,2	47,3	1,0	15,1	29,1	43,1	57,0	14.41.15,11				15,18	81,96		14.42.36,92			B.
	(g) Parthenope.....	12,8	26,3	40,2	53,2	7,1	20,8	34,2	14.59.53,51				53,60			15.1.15,36			B.
	Bessel xv. 132... ..	57,0	10,9	24,2	38,2	52,0	5,3	19,2	15.6.38,12				38,21			15.7.59,98			B.
	Bessel xv. 160... ..	....	37,4	51,0	4,8	18,7	31,9	....	15.8.4,76				4,85			15.9.26,62			B.
	(h) Iris.....	38,8	52,4	6,4	22,1	36,9	51,0	5,8	15.14.21,91				21,97			15.15.43,75			B.
	(b) Bessel xv. 368... ..	....	21,2	36,0	50,1	....	17,3	32,1	15.18.49,84				49,92			15.20.11,70			B.
	H. C. 28247.....	13,9	28,1	42,5	57,0	11,4	25,9	40,1	15.21.56,99				57,06			15.23.18,84			B.
	α Coronæ.....	14,8	29,9	45,0	0,1	15,3	30,2	45,8	15.27.0,15				0,29	81,66		15.28.22,08			B.
	42 Libræ.....	....	36,1	51,1	5,7	20,7	35,0	....	15.30.5,72				5,78			15.31.27,57			B.
	α Serpentis.....	52,1	5,9	19,0	32,5	46,2	59,9	13,7	15.35.32,75				32,93	81,83		15.36.54,73			B.
	α Herculis.....	46,9	0,8	14,1	28,3	42,7	56,1	10,0	17.6.28,42				28,59	81,86		17.7.50,47			B.
	(i) Petersen's Comet	....	....	....	....	....	41,0	35,0	17.10.9,36				9,66			17.11.31,55			B.
	α Ophiuchi.....	56,9	10,8	24,1	38,1	52,1	5,8	19,5	17.26.38,19				38,37	81,92		17.28.0,27			B.
	(k) Polaris.....	42,0	22,0	46,0	23,0	10,5	39,0	18,3	1.3.28,69			-3,5	35,44		1,21	1.4.57,86			B.
June 4	\odot 1 L.....	55,1	10,1	24,7	39,1	54,0	8,7	23,1	4.45.39,26				39,40			4.47.2,01			B.
	\odot 2 L.....	12,4	27,1	41,9	56,4	11,1	25,4	40,1	4.47.56,35				56,49			4.49.19,10			B.
	β Corvi.....	25,7	40,0	54,7	9,1	24,1	38,1	53,0	12.25.9,25				9,29	83,08		12.26.32,29			B.
	Polaris SP.....	52,0	29,2	57,8	44,8	23,5	55,5	31,8	13.3.42,09				34,89			13.4.57,92			B.
	Spica.....	15,1	29,0	42,2	56,0	10,1	23,5	37,1	13.15.56,14				56,20	83,05		13.17.19,24			B.
	(l) Bessel xiv. 1001... ..	....	11,0	....	39,0	52,9	6,6	20,7	13.55.38,86				38,90			13.57.1,97			B.
	97 Virginis.....	31,9	45,2	58,8	12,6	26,2	40,0	53,6	14.3.12,61				12,68			14.4.35,76			B.
	Arcturus.....	44,6	58,7	12,9	27,6	41,9	56,1	10,5	14.7.27,47				27,62	83,02		14.8.50,70			B.
	H. C. 26210.....	27,1	41,6	55,8	10,0	24,2	38,1	52,2	14.11.9,85				9,90			14.12.32,98			B.
	B.A.C. 4772.....	35,0	48,8	2,1	16,0	30,0	43,4	57,0	14.15.16,04				16,10			14.16.39,19			B.
	(m) Bessel xiv. 498... ..	....	29,6	....	56,3	....	....	37,8	14.25.56,68				56,74			14.27.19,84			B.
	(n) Bessel xiv. 593... ..	17,1	31,1	44,7	58,8	12,9	26,1	40,2	14.30.58,70				58,75			14.32.21,85			B.
	ϵ Bootis.....	19,0	34,0	49,1	4,5	20,0	35,0	50,0	14.37.4,51				4,63	83,06		14.38.27,74			B.
	α Libræ.....	32,1	46,0	59,9	14,0	28,1	41,9	55,7	14.41.13,96				14,00	83,14		14.42.37,11			B.
	ξ Libræ.....	12,0	26,0	39,3	53,0	7,1	20,7	34,2	14.44.53,18				53,24			14.46.16,35			B.
	(o) Bessel xiv. 972... ..	26,1	....	53,9	....	21,2	....	50,0	14.50.7,79				7,83			14.51.30,95			B.
	(p)(q) Parthenope....	27,8	....	....	9,8	....	37,2	50,6	14.59.9,54				9,61			15.0.32,73			B.
	(p)(r) Iris.....	....	2,2	....	30,2	44,3	....	14,0	15.13.30,45				30,49			15.14.53,63			B.
	α Serpentis.....	50,8	4,2	18,0	31,2	45,1	58,8	12,1	15.35.31,45				31,62	83,14		15.36.54,78			B.
	(s) δ Ophiuchi.....	27,1	41,0	54,2	7,9	21,8	35,0	48,3	16.5.7,90				8,02	83,23		16.6.31,20			B.
	(t) Polaris.....	35,0	16,5	46,0	25,0	13,0	38,0	20,0	1.3.27,64				34,39		1,09	1.4.57,95			B.
	Aldebaran.....	12,2	26,6	40,4	54,7	9,0	22,7	36,7	4.25.54,61				54,76	83,63					B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40",344, -26",892, -13",573, -0",060, +13",618, +26",913, +40",337.

(a) Faint at times. (b) Faint. (c) Great motion. (d) Very steady. (e) Diffused. (f) The small star was well defined. (g) 'Very good.'
 (h) Faint at intervals, but generally bright. (i) No certainty, the object being so very faint. (k) Tremulous. (l) Very faint from cloud.
 (m) Too much clouded. (n) 'Two stars precede this.' (o) Very faint: clouds passing. (p) Cloudy. (q) 'These wires good.' (r) Seen only by glimpses. (s) Very faint. (t) Tremulous.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
June 5	⊙ 1 L.....	0,3	15,1	29,7	44,0	59,2	13,6	27,9	4. 49. 44,26	-0,7	+1,7	-3,5	44,40		1,09	4. 51. 8,13			B.
	⊙ 2 L.....	17,2	32,0	46,2	1,0	16,0	30,7	45,0	4. 52. 1,15				1,29			4. 53. 25,02			B.
	Sirius.....	25,2	39,8	53,3	7,2	22,0	36,0	49,7	6. 37. 7,60				7,65	83,89					B.
June 7	(a) Arcturus.....	55,4	9,7	24,1	38,7	52,9	6,9	14. 7. 24,13			+1,4	24,26	86,36	1,21	14. 8. 50,64			B.	
	Bessel xiv. 259..	35,0	48,9	2,7	16,2	30,1	44,1	57,9	14. 13. 16,42				16,47			14. 14. 42,86			B.
	B.A.C. 4772.....	31,9	45,4	59,0	12,8	26,8	40,1	53,8	14. 15. 12,83				12,88			14. 16. 39,27			B.
	B.A.C. 4787.....	31,1	45,3	59,1	13,0	27,0	40,7	54,4	14. 18. 12,94				12,98			14. 19. 39,37			B.
	(b) Bessel xiv. 512..	16,1	43,8	11,3	25,1	14. 26. 43,72	43,76					14. 28. 10,16						B.	
	Bessel xiv. 596..	33,1	47,1	1,0	15,1	29,0	43,1	56,8	14. 31. 15,03				15,07			14. 32. 41,47			B.
	(c) Bessel xiv. 697..	30,1	43,9	57,2	25,1	52,9	14. 36. 11,32	11,37				14. 37. 37,78						B.	
	α ² Libræ.....	29,0	42,8	56,3	10,7	24,9	38,5	52,2	14. 41. 10,62				10,65	86,48		14. 42. 37,06			B.
	Parthenope.....	28,2	41,1	55,2	8,2	22,6	36,2	50,1	14. 57. 8,80				8,86			14. 58. 35,28			B.
	Iris.....	31,0	45,4	15. 11. 2,25	2,28			15. 12. 28,71										B.	
	α Coronæ.....	10,2	25,1	40,1	55,2	10,8	25,7	41,1	15. 26. 55,46				55,57	86,37		15. 28. 22,02			B.
	(d) Bessel xv. 587..	0,8	14,5	28,0	42,1	56,1	9,9	23,6	15. 29. 42,14				42,18			15. 31. 8,63			B.
	α Serpentis.....	47,5	1,1	14,2	28,1	41,8	55,0	8,8	15. 35. 28,07				28,22	86,54		15. 36. 54,68			B.
	Antares.....	4,0	19,2	33,7	48,8	4,1	18,7	33,7	16. 18. 48,89				48,91	86,43		16. 20. 15,40			B.
	(e) Petersen's Comet III.	42,0	25,0	9,0	16. 39. 55,73	55,97			16. 41. 22,48										B.
June 8	Polaris SP.....	25,2	56,0	41,5	17,0	23,1	51,4	5,8	13. 3. 37,97				31,37		1,21	13. 4. 58,96			B.
	(f) Arcturus.....	40,1	54,3	8,4	23,1	37,3	51,4	5,8	14. 7. 22,91				23,04	87,57		14. 8. 50,68			B.
	(g) ζ Bootis.....	33,1	47,1	0,8	14,7	14. 32. 53,08	33,22					14. 34. 0,88						B.	
	ε Bootis.....	14,3	29,6	44,8	0,0	15,2	30,2	45,6	14. 36. 59,95				0,05	87,62		14. 38. 27,72			B.
	α ² Libræ.....	41,7	55,3	9,1	23,6	37,2	14. 41. 9,38	9,41				14. 42. 37,08						B.	
	17 Libræ.....	59,2	13,0	26,4	40,1	54,0	7,7	21,0	14. 48. 40,20				40,25			14. 50. 7,93			B.
	(h) Parthenope.....	49,8	4,1	17,1	31,0	58,2	12,1	14. 56. 31,02				31,08			14. 57. 58,76			B.	
	Bessel xv. 122..	18,8	32,7	46,1	0,2	14,1	28,0	41,9	15. 6. 0,25				0,29			15. 7. 27,98			B.
	Iris.....	32,2	47,1	14,0	30,9	45,0	59,4	15. 10. 15,68				15,77			15. 11. 43,46			B.	
	H. C. 28062.....	31,8	46,1	0,3	14,9	29,7	44,1	58,1	15. 15. 15,00				15,04			15. 16. 42,74			B.
	Antares.....	2,7	17,4	32,3	47,3	2,8	17,7	32,3	16. 18. 47,50				47,52	87,82		16. 20. 15,27			B.
	(i) Petersen's Comet III.	4,0	53,0	35,0	19,0	9,0	50,0	31,0	16. 32. 20,14				20,36			16. 33. 48,12			B.
	(b) H. C. 31497.....	47,2	16,5	31,0	44,2	17. 11. 1,49	1,52					17. 12. 29,32						B.	
	H. C. 31646.....	26,7	40,8	54,9	8,8	23,1	37,2	51,0	17. 15. 8,93				8,96			17. 16. 36,76			B.
	B.A.C. 5896.....	13,1	28,1	43,1	57,9	13,0	27,9	42,7	17. 17. 57,97				58,00			17. 19. 25,80			B.
α Ophiuchi.....	51,1	4,9	18,4	32,1	46,1	0,1	14,0	17. 26. 32,38				32,52	87,83		17. 28. 0,33			B.	
June 10	⊙ 1 L.....	33,8	48,1	3,0	17,6	32,6	47,0	2,0	5. 10. 17,73				17,85		1,11	5. 11. 47,30			B.
	⊙ 2 L.....	51,0	6,0	20,2	35,1	50,1	4,7	19,0	5. 12. 35,16				35,28			5. 14. 4,73			B.
	α Serpentis.....	44,1	57,5	11,1	24,7	38,3	51,8	5,3	15. 35. 24,69				24,84	89,93					B.
June 11	(k) ⊙ 1 L.....	35,6	10,0	24,9	39,7	54,2	9,0	5. 14. 24,90				25,02		1,10	5. 15. 55,58			B.	
	⊙ 2 L.....	58,6	13,1	27,4	42,1	57,1	11,8	26,1	5. 16. 42,31				42,43			5. 18. 12,99			B.
	Sirius.....	18,7	32,9	46,7	1,0	15,0	28,9	42,9	6. 37. 0,87				0,91	90,62					B.
June 13	⊙ 1 L.....	56,4	11,0	25,8	40,4	55,5	10,0	24,8	5. 22. 40,55			-3,0	40,68		1,08	5. 24. 13,49			B.
	⊙ 2 L.....	14,1	29,0	43,7	58,4	13,2	28,0	42,7	5. 24. 58,45				58,58			5. 26. 31,39			B.
	Arcturus.....	34,1	48,7	2,9	17,1	31,7	45,9	0,1	14. 7. 17,22				17,37	93,21		14. 8. 50,57			B.
	α Coronæ.....	3,2	18,2	33,2	48,7	4,0	19,1	34,1	15. 26. 48,65				48,78	93,15		15. 28. 22,05			B.
	α Serpentis.....	40,9	54,1	7,3	21,1	35,1	48,1	2,0	15. 35. 21,23				21,41	93,36		15. 36. 54,68			B.
	H. C. 29130.....	19,3	34,0	48,0	2,2	16,8	31,0	44,9	15. 52. 2,31				2,38			15. 53. 35,66			B.
	β ¹ Scorpii.....	29,3	43,4	57,8	12,0	26,4	40,8	55,1	15. 55. 12,11				12,18			15. 56. 45,47			B.
	(l) B.A.C. 5408.....	0,3	14,8	29,0	43,2	57,2	11,7	16. 4. 28,96				29,02			16. 6. 2,31			B.	
	Antares.....	57,1	12,1	26,9	41,8	57,1	12,0	27,1	16. 18. 42,01				42,07	93,31		16. 20. 15,37			B.
June 15	Bessel xv. 122..	11,1	25,0	38,6	52,6	6,8	20,2	34,0	15. 5. 52,61			+0,5	52,66		1,00	15. 7. 27,99			B.
	(m) H. C. 27860.....	4,8	19,0	34,1	48,8	3,8	18,1	33,0	15. 8. 48,80				48,85			15. 10. 24,18			B.
	(n) Bessel xv. 265..	55,3	9,1	23,0	36,8	51,0	4,7	18,5	15. 13. 36,92				36,97			15. 15. 12,30			B.
	Bessel xv. 336..	0,1	14,2	27,8	41,9	56,1	9,8	23,3	15. 16. 41,88				41,93			15. 18. 17,27			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

(a) Very bad definition. The evening was cloudy. (b) Very faint. (c) Faint at intervals. (d) Corrected by -5" for error of counting. (e) Faint, but the observation was not doubtful. (f) Corrected by +1" for error of counting. (g) Not seen to be double. (h) Not too faint for satisfactory observation. Wire IV, which was set down 32,0, has been altered conjecturally. (i) Faint and diffused. (k) Clouded and very faint. (l) Cloudy. (m) 'A fainter of less N.P.D. follows at the distance of two intervals.' (n) 'Another of less N.P.D. distant by 2½ intervals.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Second of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"	s.	s.	s.	h.	m.	s.	
June 15	H. C. 28212.....	40,3	54,7	8,8	23,2	33,2	52,0	6,1	15.20.23,33	-0,7	+0,5	-3,0	23,38		1,00	15.21.58,72			B.
	H. C. 28345.....	14,9	28,8	43,0	57,0	11,1	25,0	39,0	15.24.56,97				57,02			15.26.32,36			B.
	42 Libræ.....	8,1	23,0	37,4	52,2	7,1	21,3	36,0	15.29.52,15				52,20			15.31.27,55			B.
	α Serpenti.....	38,8	52,2	5,5	19,2	33,0	46,4	0,0	15.35.19,30				19,43	95,34		15.36.54,78			B.
	β ¹ Scorpii.....	27,1	41,2	55,8	10,1	24,7	38,7	53,0	15.55.10,08				10,13			15.56.45,49			B.
	H. C. 29372.....	22,8	36,7	51,0	5,2	19,7	33,9	48,0	15.59.5,33				5,38			16.0.40,75			B.
	δ Ophiuchi.....	15,3	29,1	42,2	55,8	9,2	22,9	36,1	16.4.55,80				55,91	95,39		16.6.31,28			B.
	α Ophiuchi.....	43,3	57,3	11,0	24,9	38,8	52,6	6,2	17.26.24,87				24,99	95,42		17.28.0,42			B.
June 18	(a) ⊙ 1 L.....	38,1	53,0	7,3	22,0	....	....	....	5.44.22,19				22,26		1,08	5.44.59,89			B.
	(b) Polaris.....	34,5	13,0	45,0	22,2	8,3	38,0	12,3	1.4.24,76		+0,9		29,09			1.5.7,59			C.
	Polaris M.....	10,7	56,5	42,0	22,2	6,5	51,4	34,0	1.4.25,62				29,95			1.5.8,45			C.
	Aldebaran.....	57,8	11,8	25,7	39,7	54,1	7,9	21,8	4.26.39,83				39,96	38,65					B.
June 19	⊙ 1 L.....	....	....	....	31,0	45,9	0,2	15,0	5.48.30,95				31,05			5.49.9,76			B.
	⊙ 2 L.....	4,2	19,1	33,7	48,1	3,3	18,0	32,6	5.50.48,43				48,53			5.51.27,24			B.
	(c) Polaris SP.....	44,2	21,0	52,5	37,0	15,1	46,7	24,4	13.4.34,41				29,61			13.5.8,65			C.
	Polaris SP. M.....	25,6	9,0	51,2	37,0	20,2	4,0	48,3	13.4.34,18				29,38			13.5.8,42			C.
	(d) 1 L.....	4,1	18,0	31,9	46,0	0,0	13,9	27,9	14.11.45,97				46,05			14.12.25,14			B.
	(e) Polaris.....	34,7	11,6	43,8	24,0	5,0	36,0	14,5	1.4.24,23				28,56			1.5.8,14			C.
	Polaris M.....	12,0	56,0	38,5	24,0	6,3	50,2	35,6	1.4.25,52				29,85			1.5.9,43			C.
June 20	(f) ⊙ 1 L.....	....	....	....	53,8	8,1	23,1	5.52.38,87					38,97		1,27	5.53.18,77			B.
	⊙ 2 L.....	12,6	27,3	42,0	57,0	11,8	26,1	41,0	5.54.56,83				56,93			5.55.36,73			B.
	(g) α Herculis.....	28,2	42,2	56,0	10,0	24,1	38,0	51,7	17.7.10,02				10,15	40,43					B.
	H. C. 31916.....	19,8	34,0	47,2	2,1	16,1	....	....	17.24.2,00				2,05			17.24.42,46			B.
	H. C. 31955.....	26,8	40,9	54,8	9,1	23,2	37,2	51,7	17.25.9,10				9,15			17.25.49,56			B.
	α Ophiuchi.....	....	52,2	6,1	19,9	34,0	47,5	....	17.27.19,94				20,08	40,37					B.
June 21	⊙ 1 L.....	....	17,9	32,8	47,3	2,2	16,9	31,7	5.56.47,45				47,55		1,32	5.57.28,67			B.
	⊙ 2 L.....	21,1	36,0	50,1	5,1	20,1	34,9	49,3	5.59.5,23				5,33			5.59.46,45			B.
	Sirius.....	8,1	22,2	36,2	50,2	4,7	18,2	32,3	6.37.50,27				50,33	41,24		6.38.31,48			B.
	Arcturus.....	26,1	40,2	54,3	8,7	23,2	37,6	51,9	14.8.8,86				8,98	41,53		14.8.50,55			B.
	(h) Bessel xv. 265.....	49,0	3,0	16,5	....	....	....	....	15.14.30,57				30,63			15.15.12,26			B.
	γ Libræ.....	....	1,1	14,9	28,9	43,0	56,7	....	15.26.28,92				28,98			15.27.10,62			B.
	(i) η Libræ.....	17,1	31,0	45,0	58,9	12,9	27,0	40,8	15.34.58,96				59,01			15.35.40,66			B.
	(i) H. C. 28813.....	53,0	7,2	22,0	36,3	51,1	....	20,1	15.41.36,46				36,52			15.42.18,17			B.
	H. C. 28966.....	31,0	46,0	0,7	15,2	28,8	44,7	59,0	15.47.15,06				15,12			15.47.56,78			B.
	(k) 1 L.....	3,1	17,3	31,6	46,0	0,7	14,8	29,0	15.53.46,07				46,12			15.54.27,78			B.
	Antares.....	49,1	3,7	18,3	33,7	48,8	3,7	18,7	16.19.33,71				33,76	41,65		16.20.15,45			B.
June 22	(l) ⊙ 1 L.....	11,2	26,1	40,6	55,3	10,3	25,0	39,4	6.0.55,42				55,52		1,30	6.1.37,94			B.
	⊙ 2 L.....	29,1	44,0	58,3	13,1	28,1	43,0	57,3	6.3.13,27				13,37			6.3.55,79			B.
	α ¹ Libræ.....	12,3	26,2	40,0	54,1	8,2	22,1	36,0	14.41.54,13				54,18	42,90		14.42.37,07			B.
	ν Scorpii.....	53,6	7,8	22,1	36,1	50,7	4,8	19,1	16.2.36,32				36,38			16.3.19,34			B.
	δ Ophiuchi.....	8,0	21,2	34,7	48,2	2,0	15,1	28,8	16.5.48,29				48,41	42,90		16.6.31,37			B.
	Antares.....	47,6	2,3	17,2	32,2	47,3	2,2	17,3	16.19.32,30				32,35	43,06		16.20.15,32			B.
	(m) H. C. 30381.....	22,1	36,4	50,7	5,1	20,0	34,0	48,4	16.34.5,24				5,30			16.34.48,29			B.
	1 L.....	59,0	13,4	28,0	42,8	57,4	11,7	26,4	16.45.42,67				42,72			16.46.25,72			B.
	η Ophiuchi.....	24,1	38,0	51,9	6,0	20,0	....	48,0	17.1.5,99				6,04			17.1.49,05			B.
	α Herculis.....	25,9	39,7	53,5	7,5	21,7	35,2	49,0	17.7.7,50				7,63	42,96		17.7.50,65			B.
	θ Ophiuchi.....	23,7	38,0	52,7	7,3	22,7	37,0	52,1	17.12.7,65				7,71			17.12.50,73			B.
June 24	α Ophiuchi.....	33,1	47,2	0,7	14,1	28,4	42,1	55,9	17.27.14,50		+0,3		14,61	45,86	1,46	17.28.0,26			B.
	4 Sagittarii.....	....	....	40,1	54,4	9,9	24,2	39,0	17.49.54,82				54,87			17.50.40,54			B.
	2 L.....	....	38,2	53,1	7,7	23,0	37,6	....	18.33.7,92				7,96			18.33.53,67			B.
	β Lyræ.....	....	16,9	32,8	49,1	5,2	21,1	37,2	18.43.49,02				49,05	45,72		18.44.34,78			B.
	o Sagittarii.....	14,8	29,0	43,6	58,0	12,9	27,1	41,9	18.54.58,19				58,24			18.55.43,98			B.
	ζ Aquilæ.....	5,8	19,7	33,2	47,1	1,3	14,9	29,0	18.57.47,29				47,40	45,67		18.58.33,14			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',344, -26',892, -13',573, -0',060, +13',618, +26',913, +40',337.

June 16, 21^h, Hardy was put forward 1^m.

(a) Not good. Cloud came over after wire IV. (b) Vibrating. Cloudy at wire II. (c) Pretty steady. (d) Clouded and faint. (e) After wire IV the star became very faint. (f) Without the dark glass, the limb being much clouded. Wire IV, which was set down 40,8, is rejected as being discordant. (g) Faint from haze. The evening had been quite cloudy. (h) Haze and cloud. (i) Cloudy. (k) Steady. (l) Faint from cloud. (m) 'The star was low in the field.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h.	m.	s.	
June 24	(a) π Sagittarii .....	....	37,9	52,3	7,0	21,8	36,0	....	19. 0. 7,00	-0,7	+0,3	-3,0	7,05		1,46	19. 0. 52,80			B.
	(b) Hygeia .....	....	2,2	18,2	....	....	....	....	19. 29. 31,90				31,95			19. 30. 17,73			B.
	(c) α Aquilæ	3,2	17,1	30,3	44,0	57,7	11,1	24,9	19. 42. 44,04				44,17	45,68		19. 43. 29,96			B.
June 25	(d) \odot 1 L.	35,7	50,2	4,9	19,7	34,7	49,1	3,9	6. 13. 19,75				19,81		1,42	6. 14. 6,37			B.
	\odot 2 L. ....	....	....	....	38,0	52,3	....	21,6	6. 15. 37,67				37,73			6. 16. 24,29			B.
	α Serpentis	27,0	40,6	53,9	7,2	21,0	34,8	48,1	15. 36. 7,52				7,64	47,11					B.
June 27	(e) α Coronæ .....	....	2,2	17,1	32,3	48,1	2,5	....	15. 27. 32,44				32,49	49,36	1,18	15. 28. 21,97			B.
	(e) α Serpentis	24,2	37,8	51,3	5,0	18,7	31,8	45,9	15. 36. 4,96				5,08	49,66		15. 36. 54,57			B.
	(f) δ Ophiuchi	1,1	15,0	28,1	....	55,0	....	22,2	16. 5. 41,66				41,76	49,55		16. 6. 31,27			B.
	Antares	41,0	56,0	11,1	26,0	41,1	55,8	10,8	16. 19. 25,97				26,01	49,41		16. 20. 15,53			B.
June 29	(g)(h) \odot 1 L. ....	....	....	....	50,7	....	20,0	....	6. 29. 50,70			-4,3	50,73		1,03	6. 30. 41,97			B.
	\odot 2 L.	24,2	39,0	....	....	23,0	....	52,2	6. 32. 8,22				8,25			6. 32. 59,49			B.
	(i) Spica	46,5	0,1	....	27,2	....	....	....	13. 16. 27,41				27,38	51,65		13. 17. 18,91			B.
	(i) α Coronæ	44,8	0,1	....	....	45,3	0,7	15,7	15. 27. 30,25				30,26	51,58		15. 28. 21,88			B.
	(c) α Serpentis	22,2	36,0	49,2	3,0	16,8	30,0	43,7	15. 36. 2,98				3,04	51,69		15. 36. 54,67			B.
	Hygeia	49,3	3,0	17,5	31,9	46,8	1,3	15,5	19. 26. 32,18				32,14			19. 27. 23,94			B.
	γ Aquilæ	37,1	50,8	4,1	18,0	31,8	45,3	59,1	19. 38. 18,03				18,09	51,74		19. 39. 9,89			B.
	(c) α Aquilæ	57,1	11,1	24,2	38,0	52,0	5,4	19,0	19. 42. 38,12				38,19	51,75		19. 43. 30,00			B.
	(c) β Aquilæ	26,2	39,9	53,1	7,1	20,8	34,0	47,5	19. 47. 6,94				7,01	51,78		19. 47. 58,82			B.
July 1	\odot 1 L.	21,6	36,1	50,7	5,6	20,7	34,9	49,7	6. 38. 5,62	-0,8	+0,9		5,68		1,01	6. 38. 58,95			B.
	(h)(k) \odot 2 L.	39,0	53,1	....	22,9	38,0	52,1	7,1	6. 40. 22,90				22,96			6. 41. 16,23			B.
	δ Ophiuchi	57,1	10,8	24,0	37,7	51,1	4,6	18,0	16. 5. 37,62				37,66	53,65		16. 6. 31,33			B.
	χ Ophiuchi	46,2	0,1	14,2	28,8	43,0	57,0	11,2	16. 17. 28,65				28,61			16. 18. 22,29			B.
	(l) Antares .....	....	51,9	6,6	21,6	37,1	51,8	6,9	16. 19. 21,84				21,79	53,63		16. 20. 15,47			B.
	(m) * N.P.D. 60°. 52'	45,1	0,2	15,6	31,0	46,3	2,0	17,2	16. 26. 31,05				31,09			16. 27. 24,77			B.
	* N.P.D. 60°. 51'	1,2	16,9	32,0	47,6	3,1	18,3	34,0	16. 30. 47,59				47,63			16. 31. 41,32			B.
	25 Scorpii	4,9	19,8	34,2	49,1	4,4	19,1	34,1	16. 36. 49,37				49,33			16. 37. 43,02			B.
	H. C. 30609	58,1	13,0	27,9	43,1	58,0	13,1	28,1	16. 41. 43,04				42,99			16. 42. 36,68			B.
	(n) Hygeia	8,8	22,9	37,3	52,0	7,2	21,8	35,9	19. 23. 52,27				52,23			19. 24. 46,04			B.
	γ Aquilæ	35,0	48,5	2,0	15,9	30,0	43,1	57,1	19. 38. 15,94				16,03	53,81		19. 39. 9,85			B.
	α Aquilæ	55,1	9,1	22,2	36,1	49,8	3,2	17,1	19. 42. 36,09				36,18	53,79		19. 43. 30,00			B.
	β Aquilæ	24,2	38,0	51,2	4,8	18,2	32,0	45,4	19. 47. 4,83				4,92	53,90		19. 47. 58,74			B.
July 2	\odot 1 L. ....	....	43,3	58,0	12,7	27,8	42,0	....	6. 42. 12,74				12,80		1,04	6. 43. 7,05			B.
	\odot 2 L.	46,1	1,0	15,3	30,0	45,0	59,2	14,1	6. 44. 30,10				30,16			6. 45. 24,41			B.
	(o) Polaris SP.	40,0	16,0	....	....	10,0	41,5	20,0	13. 4. 29,54				22,88						B.
	(c) Spica .....	....	....	10,8	24,3	38,2	52,0	5,6	13. 16. 24,51				24,50	54,50		13. 17. 19,03			B.
	(c) ϵ Bootis .....	....	....	....	32,9	48,2	3,1	18,3	14. 37. 32,79				32,83	54,63		14. 38. 27,42			B.
	α^2 Libræ	0,8	14,6	28,3	42,2	56,7	10,1	24,1	14. 41. 42,40				42,36	54,65		14. 42. 36,96			B.
	α Coronæ	41,9	57,1	12,1	27,0	42,3	57,3	12,7	15. 27. 27,20				27,25	54,56		15. 28. 21,88			B.
	α Serpentis	19,2	33,0	46,2	0,0	13,8	27,1	40,7	15. 36. 0,00				0,08	54,64		15. 36. 54,72			B.
	α Ophiuchi	24,2	38,0	51,8	5,8	19,8	33,1	47,1	17. 27. 5,69				5,77	54,73		17. 28. 0,49			B.
July 3	H. C. 31831	38,9	52,8	6,8	21,0	35,1	49,0	3,0	17. 21. 20,94				20,91		0,98	17. 22. 16,69			B.
	α Ophiuchi	23,3	37,1	50,9	4,7	18,8	32,2	46,0	17. 27. 4,71				4,79	55,71					B.
	(p) μ^1 Sagittarii	11,0	25,2	40,0	54,0	8,9	....	37,1	18. 3. 54,18				54,14	55,89					B.
July 4	H. C. 33089	18,8	32,7	46,9	1,0	15,1	29,0	43,1	17. 55. 0,94				0,91		0,95	17. 55. 57,60			B.
	B.A.C. 6141	29,1	44,0	58,5	13,1	28,0	42,7	57,3	17. 59. 13,24				13,20			18. 0. 9,89			B.
	μ^1 Sagittarii	10,0	24,3	38,8	53,1	8,0	22,0	36,7	18. 3. 53,27				53,23	56,80		18. 4. 40,93			B.
	H. C. 33651	36,1	51,1	5,3	20,0	35,0	49,2	4,1	18. 9. 20,11				20,07			18. 10. 16,77			B.
	H. C. 33806	34,7	49,6	4,1	19,2	35,1	49,8	4,8	18. 13. 19,62				19,57			18. 14. 16,27			B.
	B.A.C. 6273	28,1	42,9	57,7	12,8	27,8	42,3	57,1	18. 19. 12,67				12,63			18. 20. 9,34			B.
	H. C. 34339	49,2	3,6	17,4	31,8	46,0	0,0	13,9	18. 25. 31,70				31,67			18. 26. 28,38			B.
	β Lyræ	50,1	6,0	22,0	38,0	54,2	10,0	26,2	18. 43. 38,08				38,11	56,74		18. 44. 34,83			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40°, 344, - 26°, 892, - 13°, 573, - 0°, 060, + 13°, 618, + 26°, 913, + 40°, 337.

(a) Clouds coming over. (b) Extremely faint: hid by cloud after wire III. (c) Faint from cloud. (d) Clouds passing. All the wires of 1 L have been corrected by + 1". (e) Bad definition. (f) Faint from cloud and diffused. Wire V was written down 54,0 and has been altered conjecturally. (g) Clouds. (h) Fairly without the dark glass. (i) Very cloudy. (k) Very faint. (l) The counting was found to be 28" in advance of the clock. (m) Disturbance by a carriage passing. (n) Pretty bright. (o) Clouds passing. (p) Much obscured by cloud.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
July 4	ζ Aquilæ.	54,9	8,8	22,4	36,2	50,4	4,0	17,9	18.57.36,37	-0,8	+0,9	-4,3	36,45	56,74	0,95	18.58.33,18	B.		
	(a) Hygeia.	35,7	....	4,7	19,1	33,6	48,0	2,9	19.21.19,16				19,12			19.22.15,87	B.	
	γ Aquilæ.	32,0	45,8	59,8	13,1	27,0	40,3	54,0	19.38.13,14				13,22	56,68		19.39.9,98	B.		
	α Aquilæ.	52,2	6,1	19,6	33,1	47,0	0,1	14,0	19.42.33,16				33,25	56,76		19.43.30,01	B.		
	β Aquilæ.	21,5	34,9	48,1	2,0	16,0	29,2	42,6	19.47.2,04				2,13	56,74		19.47.58,89	B.		
	Aldebaran.	39,9	53,7	7,8	21,7	36,1	50,0	4,0	4.26.21,88				21,95	57,01	1,00	4.27.19,07	B.		
July 5	⊙ 1 L.	48,8	....	17,8	....	47,5	2,0	16,7	6.54.32,70				32,76			6.55.29,99	B.
	⊙ 2 L.	6,1	20,2	35,1	50,0	4,7	19,1	33,4	6.56.49,80				49,86			6.57.47,09	B.		
	(c) B.A.C. 5741.	30,0	....	59,4	14,1	29,1	44,1	59,1	16.55.14,34				14,32			16.56.11,97	B.	
	μ ¹ Sagittarii.	9,1	23,7	38,0	52,2	7,1	21,1	35,5	18.3.52,38				52,34	57,70		18.4.50,03	B.		
	(d) Hygeia.	43,7	58,5	....	27,4	42,2	56,2	11,0	19.20.27,39				27,35			19.21.25,10	B.	
	γ Aquilæ.	30,9	44,8	58,3	12,0	26,1	39,7	53,1	19.38.12,13				12,22	57,69		19.39.9,98	B.		
	α Aquilæ.	51,2	5,1	18,3	....	46,2	59,3	12,9	19.42.32,16				32,25	57,78		19.43.30,01	B.	
	(e) β Aquilæ.	20,3	34,0	47,2	1,0	....	....	41,6	19.47.0,97				0,98	57,90		19.47.58,74	B.
July 7	(f) Sirius.	49,1	3,3	17,1	31,2	45,7	59,3	13,4	6.37.31,30		+0,9	-2,9	31,36	60,35	1,02	6.38.31,60	B.		
July 8	⊙ 1 L.	5,7	20,3	34,9	49,6	4,3	18,9	33,3	7.6.49,58				49,68			7.7.49,94	B.		
	⊙ 2 L.	22,8	37,2	51,7	6,2	21,1	35,7	50,1	7.9.6,40				6,50			7.10.6,76	B.		
	Antares.	29,9	44,9	59,5	14,7	30,0	44,6	59,6	16.19.14,74				14,79	60,61		16.20.15,44	B.		
	(g) Hygeia.	8,1	....	35,7	....	5,8	....	35,0	19.17.51,14				51,20			19.18.51,98	B.
	γ Aquilæ.	28,1	41,9	55,2	9,0	22,9	36,3	50,0	19.38.9,06				9,21	60,74		19.39.10,01	B.		
	α Aquilæ.	48,2	1,8	15,2	29,2	43,1	56,2	9,7	19.42.29,06				29,21	60,85		19.43.30,01	B.		
	β Aquilæ.	17,6	31,0	44,4	58,0	11,8	25,0	38,4	19.46.58,03				58,19	60,73		19.47.58,99	B.		
July 9	(e)(h) ⊙ 1 L. ....	....	25,2	39,9	....	9,2	23,9	38,3	7.10.54,53				54,63		1,02	7.11.55,91	B.
	⊙ 2 L.	27,0	42,0	....	10,9	26,1	40,3	55,1	7.13.11,12				11,22			7.14.12,50	B.	
	Hygeia.	16,0	30,2	45,0	59,7	14,2	28,3	43,0	19.16.59,49				59,55			19.18.1,35	B.		
	γ Aquilæ.	27,0	40,8	54,1	8,0	21,7	35,2	49,0	19.38.7,97				8,12	61,84		19.39.9,93	B.		
	α Aquilæ.	47,3	1,1	14,3	28,1	42,1	55,2	8,8	19.42.28,13				28,28	61,80		19.43.30,10	B.		
July 10	(e) ⊙ 1 L.	15,2	30,0	44,3	59,0	....	28,1	42,9	7.14.59,04				59,14			7.16.1,45	B.	
	⊙ 2 L. ....	....	46,2	1,0	15,4	30,2	44,9	59,1	7.17.15,51				15,61			7.18.17,92	B.	
July 11	B.A.C. 6565.	51,0	6,2	21,1	36,3	51,9	7,0	22,1	19.3.36,52				36,57		1,18	19.4.40,40	B.		
	(i) B.A.C. 6587.	40,2	54,2	8,8	23,0	37,3	51,4	5,9	19.8.22,97				23,03			19.9.26,86	B.		
	(k) γ Aquilæ.	24,9	38,8	52,2	6,0	20,0	33,1	47,0	19.38.6,00				6,15	63,83			B.		
	(l) β Aquilæ. ....	....	....	....	....	8,8	....	35,2	19.46.54,86				55,02	63,94			B.
July 12	(m) ⊙ 1 L.	22,9	37,7	51,9	6,7	21,3	35,9	50,2	7.23.6,66				6,76		1,21	7.24.11,25	B.		
	⊙ 2 L. ....	....	54,1	8,3	23,0	....	52,0	6,2	7.25.22,94				23,04			7.26.27,53	B.
	(n) α Herculis. ....	....	....	....	45,5	59,5	13,2	27,2	17.6.45,48				45,61	64,98			B.
	Rigel. ....	....	....	....	14,0	27,7	41,1	54,7	5.6.13,96				14,05	65,49	1,22	5.7.19,60	B.
	α Orionis.	16,5	29,9	43,3	57,0	10,9	24,1	38,0	5.45.57,10				57,25	65,62		5.47.2,83	B.		
July 13	⊙ 1 L.	26,1	40,4	55,1	9,8	24,7	38,8	53,4	7.27.9,76		+0,7		9,86			7.28.15,53	B.		
	⊙ 2 L.	42,2	57,1	11,3	26,2	41,0	55,1	9,8	7.29.26,10				26,20			7.30.31,87	B.		
	(g) Hygeia.	49,0	....	....	32,0	....	0,0	15,0	19.13.31,75				31,80			19.14.38,07	B.
	γ Aquilæ.	22,3	36,2	49,8	3,5	17,4	31,0	44,7	19.38.3,56				3,70	66,30		19.39.9,99	B.		
	α Aquilæ.	43,1	56,2	10,0	23,7	37,7	51,0	4,5	19.42.23,74				23,88	66,24		19.43.30,17	B.		
	β Aquilæ.	12,0	25,6	39,0	52,3	6,2	19,2	33,0	19.46.52,47				52,62	66,36		19.47.58,91	B.		
July 14	Polaris SP.	37,3	13,5	44,0	30,0	7,6	39,7	17,2	13.4.27,04				23,06			13.5.30,23	C.		
	Polaris SP. M.	18,2	0,8	46,0	30,0	11,4	57,2	39,5	13.4.26,44				22,46			13.5.29,63	C.		
	(o) Polaris SP. M.	49,0	33,3	....	....	....	23,0	7,6									
	(p) α Orionis. ....	....	....	41,0	54,5	8,2	21,7	35,3	5.45.54,59				54,73	68,18	1,23	5.47.2,92	B.
July 15	(q) γ Virginis. np.	15,2	29,0	42,1	55,9	9,2	22,8	36,0	12.32.55,74				55,87			12.34.4,40	B.		

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40",344, -26",892, -13",573, -0",060, +13",618, +26",913, +40",337.

(a) Bright. (b) Generally without the dark glass. (c) 'A brighter of Mag. 6½ and greater N.P.D. preceded.' The preceding star is Argelander Z. 304, No. 99. (d) Not so bright as on former nights. (e) Cloudy. (f) Corrected by +1" for error of counting. (g) Very faint. (h) No clock-stars could be observed before midnight. (i) 'Two brighter preceded.' (j) Very faint from cloud. (k) Invisible at the other wires. This observation is used for clock-error, a weight of one-third being given to it. (m) Without the dark glass. Wires VI and VII of 2 L have been increased 1". (n) Hitherto cloudy. (o) Micrometer intervals from the middle wire, -5', -4', +4', +5'. This and the preceding are reduced as one observation. (p) Much diffused. (q) Beautifully defined.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
July 15	1 L.....	8,7	22,1	36,0	50,0	4,0	17,4	31,1	13. 3. 49,90	-0,8	+0,7	-2,9	50,01		1,23	13. 4. 58,57			B.
	Spica.....	29,3	43,0	56,6	10,2	24,1	37,9	51,1	13. 16. 10,31				10,37	68,48		13. 17. 18,94			B.
	α Ophiuchi.....	10,2	24,1	37,8	51,7	5,8	19,1	33,2	17. 26. 51,70				51,83	68,66		17. 28. 0,61			B.
	Hygeia.....	4,1	....	32,8	47,1	1,0	16,5	31,1	19. 11. 47,26				47,32			19. 12. 56,19			B.
	α Aquilæ.....	40,2	53,9	7,2	21,1	34,8	48,1	1,8	19. 42. 21,01				21,15	68,99		19. 43. 30,05			B.
	β Aquilæ.....	9,2	23,0	36,1	49,7	3,5	17,0	30,2	19. 46. 49,82				49,97	69,03		19. 47. 58,87			B.
	(a) Polaris M.....	39,0	21,0	40,0	0,0	42,5	29,0	54,0	1. 4. 18,43				21,95			1. 5. 31,13			C.
		40,5	21,0	8,5	....	....	....	....							
July 16	(b) 1 L.....	32,1	46,9	1,0	15,2	30,0	44,7	59,0	7. 39. 15,56	+0,4	-1,2		15,45		1,30	7. 40. 25,01			B.
	2 L.....	....	2,9	17,1	31,8	46,1	0,8	15,0	7. 41. 31,71				31,60			7. 42. 41,17			B.
	(c) Polaris SP.....	....	....	....	....	....	37,9	12,0	13. 4. 23,95	-0,8	+0,2		20,96			1. 5. 30,82			B.
	1 L.....	43,0	57,0	10,8	24,8	38,9	52,6	6,2	13. 55. 24,76				24,82			13. 56. 34,73			B.
	(d) ϵ Bootis.....	31,9	46,9	2,0	17,1	32,8	47,8	3,0	14. 37. 17,36				17,39	69,89					B.
	δ Ophiuchi.....	40,9	54,0	7,3	21,1	34,9	48,0	1,4	16. 5. 21,08				21,17	70,06					B.
	1 L.....	33,0	47,6	1,7	16,2	31,1	45,1	59,7	7. 43. 16,34			+0,3	16,41			7. 44. 27,28			B.
	2 L.....	49,0	3,2	17,7	32,2	47,1	1,0	15,8	7. 45. 32,28				32,35			7. 46. 43,22			B.
July 17	(e) 1 L.....	42,1	56,1	10,1	24,2	38,7	52,1	6,7	14. 46. 24,29				24,34			14. 47. 35,59			B.
	β Lyræ.....	30,1	46,7	2,1	18,2	34,9	50,7	6,8	18. 43. 18,50	-1,2	+0,3		18,49	76,40	1,13	18. 44. 35,02			B.
	γ Aquilæ.....	12,2	26,1	39,6	53,1	7,2	20,5	34,2	19. 37. 53,27				53,36	76,70		19. 39. 9,93			B.
	α Aquilæ.....	32,8	46,3	0,0	13,3	27,1	40,9	54,1	19. 42. 13,50				13,60	76,59		19. 43. 30,18			B.
	1 L.....	24,2	38,3	52,6	7,0	21,2	35,9	50,0	8. 12. 7,03				7,08		1,10	8. 12. 27,21			T.
	2 L.....	38,4	52,9	7,0	21,3	36,0	50,3	4,3	8. 14. 21,45				21,50			8. 14. 41,63			T.
	(f) μ Sagittarii.....	46,2	0,5	15,0	29,3	44,1	58,2	12,6	18. 4. 29,42				29,43	20,65		18. 4. 50,01			T.
	(g) β Lyræ.....	25,8	42,1	58,1	14,3	30,6	46,3	2,5	18. 44. 14,24				14,23	20,64		18. 44. 34,84			T.
July 24	ζ Aquilæ.....	31,2	44,8	58,2	12,3	26,7	40,2	54,2	18. 58. 12,51				12,59	20,69		18. 58. 33,21			T.
	2 L.....	51,2	5,7	20,3	34,9	49,4	3,5	18,2	20. 51. 34,74				34,75			20. 51. 55,46			T.
	β Aquarii.....	....	....	....	21,2	35,0	48,2	1,8	21. 23. 21,23				21,27	20,55		21. 23. 42,00			T.
	(f) 1 L.....	....	....	40,3	55,0	9,2	....	....	8. 23. 54,84				54,90		1,27	8. 24. 18,45			T.
	(f) Antares.....	....	....	....	51,2	6,2	21,3	36,3	16. 19. 51,26				51,27	23,98					T.
	(h) α Herculis.....	44,9	58,6	12,4	26,3	40,4	54,1	8,1	17. 7. 26,40				26,47	24,02					T.
	(f)(i) 1 L.....	....	....	29,0	43,2	57,3	12,0	26,0	8. 31. 43,25			+0,5	43,35		1,46	8. 32. 9,54			T.
	2 L.....	14,4	28,6	42,9	56,6	11,4	25,2	39,2	8. 33. 56,90			-2,2	57,00			8. 34. 23,19			T.
July 29	α Ophiuchi.....	52,3	5,9	19,6	....	47,5	1,2	15,0	17. 27. 33,57				33,69	26,73					T.
	α Herculis.....	40,3	54,2	8,1	22,1	36,2	50,0	3,8	17. 7. 22,10				22,21	28,26	1,52				T.
	(f)(k) 1 L.....	30,1	44,2	59,0	....	....	....	....	8. 47. 12,80			+1,1	12,93		1,37	8. 47. 44,97			T.
	2 L.....	27,6	41,9	56,1	10,9	25,3	39,4	54,0	4. 25. 10,74				10,88			4. 25. 44,04			T.
	Aldebaran.....	....	18,3	32,6	46,5	0,6	14,6	28,6	4. 26. 46,53				46,67	33,08		4. 27. 19,83			T.
	α Ophiuchi.....	45,1	58,7	12,4	26,3	40,4	54,0	7,6	17. 27. 26,36				26,51	33,86		17. 28. 0,42			T.
	γ Aquilæ.....	55,0	8,4	22,1	35,6	49,7	3,2	16,8	19. 38. 35,83				35,99	34,11		19. 39. 10,02			T.
	α Aquilæ.....	15,3	28,4	42,3	56,0	9,8	23,3	36,9	19. 42. 56,00				56,17	34,06		19. 43. 30,21			T.
Aug. 3	β Aquilæ.....	44,4	58,0	11,4	24,8	38,6	52,1	5,5	19. 47. 24,97				25,14	33,96		19. 47. 59,18			T.
	α^2 Capricorni.....	....	44,3	58,1	12,1	26,1	39,6	53,3	20. 9. 12,02				12,10	34,13		20. 9. 46,16			T.
	Sirius.....	13,9	28,1	42,0	56,0	10,2	24,1	38,1	6. 37. 56,06				56,14	36,01	1,34	6. 38. 32,15			T.
	(l) 1 L.....	2,0	16,0	29,0	44,1	58,4	12,1	26,2	8. 58. 44,10				44,24			8. 59. 20,38			T.
	2 L.....	14,2	28,1	42,2	56,5	11,0	24,8	39,1	9. 0. 56,56				56,70			9. 1. 32,84			T.
	(i) 1 L.....	51,0	5,2	19,1	33,2	47,0	1,1	15,4	9. 2. 33,14				33,28		1,29	9. 3. 10,80			T.
	2 L.....	3,6	17,8	31,4	45,8	59,2	14,0	27,8	9. 4. 45,66				45,80			9. 5. 23,32			T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^{\circ}344$, $-26^{\circ}892$, $-13^{\circ}573$, $-0^{\circ}060$, $+13^{\circ}618$, $+26^{\circ}913$, $+40^{\circ}337$.

July 21, 23^h, Hardy was put forward 1^m, and the hour-hand was adjusted.

(a) Clouds and unsteadiness. Micrometer intervals from the middle wire, $-5'$, $-4'$, $-2'$, $+1'$, $+2'$, $+3'$, $+5'$, $+6'$, $+7'$, $+8'$, with an error of 0^o.007 in defect in the coincidence reading used. Hence the correction to the middle wire is $-2'.107$, or in time $-1^m.32^s.31$, 13^h being by the observation equal to 569^s.5. (b) Clouds. During this observation the Illumination was West, and the Equatorial Interval of wire I from the mean of the wires was $-40^{\circ}337$. The times for 1 L have been increased 23^s. (c) Clouded at the other wires. (d) Mist. The small star seen. (e) Much obscured by cloud. (f) Cloudy. (g) All the wires except I and II have been corrected by -2^s . (h) The last three wires have been increased 10^s. (i) Unsteady. (k) Not seen through the dark glass after wire III and too bright without it. (l) Unsteady and badly defined. The last four wires of 1 L, and the last five wires of 2 L, have been increased 10^s.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"				h. m. s.	h. m. s.	h. m. s.	
Aug. 6	(a) Procyon.....	....	....	....	....	....	15,0	28,4	7.30.47,91	-1,2	+1,1	-2,2	48,08	38,71	1,29				T.
	(a) Pollux.....	....	....	....	....	44,3	59,6	14,7	7.35.28,88				28,97	38,75					T.
Aug. 7	☉ 1 L.....	40,0	51,0	8,1	22,1	36,0	50,0	4,3	9.6.22,07				22,21				9.7.1,02		T.
	(b)(c)☉ 2 L.....	52,4	6,3	....	34,2	....	....	....	9.8.34,43				34,57				9.9.13,38		T.
	(b) Polaris SP.....	19,0	....	28,0	....	....	....	....	13.5.10,21				7,59						T.
	(b) ε Bootis.....	....	17,4	32,4	47,6	3,2	18,2	33,3	14.37.47,75				47,84	39,08					T.
Aug. 8	(d) ☉ 2 L.....	40,6	54,3	8,4	22,5	36,5	50,4	4,6	9.12.22,47				22,61		1,36		9.13.2,52		T.
Aug. 9	(e) δ Ursæ Minoris.....	....	....	....	9,5	1,0	45,5	32,0	18.20.10,99			+0,4	11,06						T.
	(f) B.A.C. 6400.....	44,7	59,1	13,2	28,2	43,3	57,8	12,4	18.40.28,39				28,46				18.41.10,27		T.
	β Lyræ.....	4,6	20,8	36,8	52,9	9,2	25,2	41,1	18.43.52,94				52,96	41,81			18.44.34,77		T.
	H. C. 35311.....	22,1	37,2	52,0	7,0	22,4	37,2	52,1	18.49.7,15				7,22				18.49.49,04		T.
	H. C. 35459.....	47,0	0,9	15,1	29,2	43,2	57,4	11,4	18.52.29,18				29,24				18.53.11,06		T.
	ζ Aquilæ.....	9,9	23,5	37,4	51,2	5,4	19,0	33,0	18.57.51,34				51,46	41,79			18.58.33,28		T.
	H. C. 35932.....	3,5	18,1	32,8	47,3	2,2	17,0	31,3	19.2.47,46				47,53				19.3.29,36		T.
	H. C. 36128.....	....	....	30,2	44,3	59,0	12,9	27,5	19.6.44,57				44,64				19.7.26,47		T.
	H. C. 36814.....	42,3	57,3	12,2	27,1	42,0	56,3	11,1	19.21.26,90				26,97				19.22.8,81		T.
	(g) H. C. 36961.....	0,4	14,2	28,3	42,3	57,2	10,8	24,8	19.24.42,57				42,63				19.25.24,48		T.
	(h) H. C. 37238.....	6,0	21,3	36,2	51,8	7,2	22,1	37,6	19.30.51,74				51,81				19.31.33,66		T.
	H. C. 37481.....	39,4	54,5	9,7	25,0	40,2	55,3	10,4	19.36.24,93				25,00				19.37.6,86		T.
	(i) γ Aquilæ.....	....	0,7	14,3	28,0	42,1	55,4	9,1	19.38.28,10				28,23	41,87			19.39.10,09		T.
	α Aquilæ.....	7,4	21,0	34,4	48,2	2,0	15,3	29,1	19.42.48,20				48,34	41,90			19.43.30,21		T.
	β Aquilæ.....	36,4	49,8	3,4	17,1	30,9	44,1	57,3	19.47.17,00				17,14	41,97			19.47.59,01		T.
	Bessel xx. 1541.....	....	10,4	23,9	38,1	52,1	6,0	....	20.59.38,10				38,16				21.0.20,10		T.
	(k) B.A.C. 7352.....	2,8	16,3	30,2	44,2	58,3	12,1	26,2	21.2.44,30				44,36				21.3.26,30		T.
	Bessel xxi. 142.....	56,1	9,7	23,7	37,2	51,5	5,2	....	21.6.37,46				37,52				21.7.19,47		T.
	Bessel xxi. 222.....	58,2	12,0	25,9	39,7	53,7	7,3	21,1	21.9.39,70				39,76				21.10.21,71		T.
	(l) Bessel xxi. 295.....	....	6,0	19,7	33,7	47,3	1,7	15,1	21.12.33,68				33,74				21.13.15,69		T.
	Bessel xxi. 378.....	....	22,2	36,1	50,1	4,0	17,4	31,2	21.15.49,96				50,03				21.16.31,98		T.
	Bessel xxi. 458.....	27,1	41,0	54,9	8,9	22,9	36,7	50,4	21.19.8,85				8,91				21.19.50,86		T.
	β Aquarii.....	19,4	33,1	46,2	0,1	13,7	27,2	40,6	21.23.0,04				0,14	41,87			21.23.42,10		T.
	(m) α Aquarii.....	44,4	58,2	11,6	25,1	38,6	52,1	5,4	21.57.25,06				25,19	41,94			21.58.7,18		T.
Aug. 10	(n) α Ophiuchi.....	35,7	49,3	3,1	17,1	31,0	44,4	58,6	17.27.17,03				17,14	43,16	1,40				T.
Aug. 12	☉ 1 L.....	....	49,4	3,7	17,5	31,9	45,5	59,2	9.25.17,55			-3,0	17,62		1,21		9.26.2,77		T.
	☉ 2 L.....	47,0	1,0	15,0	28,8	43,2	56,9	10,8	9.27.28,96				29,03				9.28.14,19		T.
	(o) γ Aquilæ.....	43,2	57,0	10,3	24,3	38,2	51,8	5,2	19.38.24,29				24,38	45,71			19.39.10,05		T.
	(p)(q)α Aquilæ.....	3,5	17,3	31,0	44,2	58,2	11,7	25,3	19.42.44,46				44,56	45,67			19.43.30,23		T.
	(q) β Aquilæ.....	32,8	46,2	0,0	13,2	27,2	40,3	53,8	19.47.13,36				13,46	45,64			19.47.59,14		T.
	α ² Capricorni.....	....	....	....	0,6	14,3	28,1	42,1	20.9.0,55				0,56	45,69			20.9.46,26		T.
Aug. 13	(r) ☉ 2 L.....	32,1	46,0	59,9	13,9	28,1	42,1	56,0	9.31.14,01				14,08				9.32.0,45		T.
Aug. 14	(g) Spica.....	49,7	3,4	17,0	30,8	44,4	58,1	11,9	13.16.30,75				30,77	47,73	1,25		13.17.18,53		T.
	Arcturus.....	19,2	33,4	47,5	2,0	16,5	30,7	44,9	14.8.2,03				2,08	47,73			14.8.49,89		T.
	α ² Libræ.....	....	20,3	34,6	48,6	3,0	16,6	30,6	14.41.48,65				48,66	47,83			14.42.36,50		T.
	☉ 1 L.....	29,2	43,9	57,8	12,2	26,4	40,3	54,8	15.20.12,08				12,09				15.20.59,96		T.
	α Coronæ.....	48,2	3,2	18,0	33,2	48,6	3,7	18,6	15.27.33,35				33,37	47,82			15.28.21,25		T.
	α Ophiuchi.....	....	44,3	58,2	12,1	26,2	39,8	....	17.27.12,12				12,20	48,04			17.28.0,18		T.
	μ ¹ Sagittarii.....	18,7	33,0	47,2	1,9	16,4	30,8	45,2	18.4.1,88				1,89	48,06			18.4.49,90		T.
	(s) Hygeia.....	20,0	....	....	6,0	....	33,2	47,6	18.53.4,45				4,46				18.53.52,51		T.
	γ Aquilæ.....	....	....	8,2	21,7	35,6	49,2	3,1	19.38.21,90				21,99	48,09			19.39.10,08		T.
	α Aquilæ.....	....	....	....	42,0	55,8	9,2	22,9	19.42.42,06				42,16	48,06			19.43.30,26		T.
	β Aquilæ.....	30,2	43,7	57,2	10,6	24,6	38,0	51,4	19.47.10,81				10,91	48,19			19.47.59,01		T.
Aug. 15	(t) ☉ 1 L.....	25,3	39,2	54,0	8,1	23,1	37,2	51,9	16.12.8,40				8,41		1,28		16.12.57,61		T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

(a) These two have the weight of one observation, and the apparent R.A. of the clock-stars are consequently not calculated. (b) Cloudy. (c) Unsteady. (d) Well defined. (e) Steady. (f) 'Another of less N.P.D. follows.' The two stars are Argelander Z. 220, N^o. 154 and 155. (g) 'Two rather brighter in the south-following quarter.' (h) Very faint. (i) Hurried at wire I. (k) This is H. C. 41049. (l) 'The north and brighter of two,' as represented by a diagram. The other is Bessel xxi. 296. 'Another of greater N.P.D. followed,' viz. Bessel xxi. 307. (m) Dense cloud. (n) The sky clear for a short time. (o) All the wires, except I and II, have been increased 10". (p) Flaring. (q) Very unsteady. (r) The first limb lost by the pencil breaking. (s) 'An excessively faint object.' Wires I and IV seem discordant. (t) Seen faintly through cloud.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	s.	h.	m.	s.
Aug. 15	(a) Sirius.....	....	....	28,3	42,1	56,3	10,3	24,3	6.37.42,24	-1,2	+0,4	-3,0	42,25	50,13	1,28	6.38.32,22			T.
Aug. 16	⊙ 1 L.....	33,5	47,2	1,2	15,1	29,3	43,1	56,8	9.40.15,17				15,25			9.41.5,39			T.
	(b) ⊙ 2 L.....	44,2	58,2	11,5	26,1	40,0	53,6	7,3	9.42.25,84				25,92			9.43.16,06			T.
	(a) Polaris SP.....	....	50,0	....	6,0	....	....	....	13.5.3,84				1,32						
	(a) μ ¹ Sagittarii.....	....	....	44,9	59,2	14,1	28,3	42,8	18.3.59,44				59,45	50,48		18.4.50,03			T.
	(a)(c) δ Ursæ Minoris.....	....	27,0	9,8	58,5	50,0	33,0	22,0	18.19.59,86				0,44						
	(d) 24 Ursæ Minoris.....	....	....	....	31,5	52,0	5,3	19,0	18.25.33,43				31,15			18.26.24,76			T.
	(e) β Lyrae.....	56,1	11,9	27,3	44,1	0,2	16,2	32,2	18.43.44,00				44,00	50,68		18.44.34,62			T.
	ζ Aquilæ.....	....	14,6	28,5	42,3	56,4	10,4	24,2	18.57.42,48				42,56	50,63		18.58.33,19			T.
	(a) H. C. 36591.....	39,7	54,2	8,5	23,1	....	....	6,4	19.16.23,11				23,12			19.17.13,77			T.
	(a) B.A.C. 6666.....	1,9	17,0	32,0	....	....	....	....	19.19.47,27				47,27			19.20.37,92			T.
	γ Aquilæ.....	38,3	52,0	5,4	19,2	33,2	46,5	0,3	19.38.19,28				19,37	50,70		19.39.10,04			T.
	α Aquilæ.....	58,8	12,2	25,7	39,3	53,3	6,6	20,2	19.42.39,45				39,55	50,66		19.43.30,22			T.
	β Aquilæ.....	27,8	41,2	54,9	8,4	22,2	35,3	49,1	19.47.8,42				8,52	50,57		19.47.59,20			T.
Aug. 17	(f) β Aquarii.....	9,3	22,8	36,2	49,9	3,9	17,1	30,6	21.22.49,98				50,03	52,03	1,29				T.
Aug. 19	(a) ⊙ 1 L.....	41,4	55,2	9,0	22,8	37,0	....	....	9.51.22,91				22,99		1,15	9.52.17,13			T.
	β Lyrae.....	51,9	8,0	24,0	40,1	56,3	12,4	28,3	18.43.40,14				40,14	54,50					T.
	(g) α Aquarii.....	32,1	45,3	58,8	12,3	26,2	39,2	52,6	21.57.12,35				12,43	54,79					T.
	(a) Pollux.....	....	....	....	12,8	28,3	43,3	....	7.35.12,79				12,80	55,19	1,10	7.36.7,92			T.
Aug. 20	(h) ⊙ 1 L.....	....	37,0	50,2	4,3	18,4	32,2	46,2	9.55.4,47				4,56			9.55.59,79			T.
	(g)(i) α Ophiuchi.....	....	....	....	....	....	32,1	45,9	17.27.4,53				4,61	55,54		17.28.0,18			T.
	β Lyrae.....	50,8	6,9	22,8	39,0	55,2	11,4	27,3	18.43.39,06				39,06	55,56		18.44.34,69			T.
	ζ Aquilæ.....	56,2	9,7	23,6	37,4	51,5	5,2	19,1	18.57.37,53				37,61	55,55		18.58.33,25			T.
	γ Aquilæ.....	33,2	47,0	0,4	14,2	28,2	41,4	55,2	19.38.14,23				14,32	55,73		19.39.9,99			T.
	α Aquilæ.....	53,7	7,3	21,0	34,3	48,1	1,5	15,1	19.42.34,43				34,53	55,66		19.43.30,20			T.
	β Aquilæ.....	22,7	36,0	49,5	3,2	17,2	30,3	43,9	19.47.3,26				3,36	55,71		19.47.59,04			T.
	(k) 1 L.....	25,7	40,3	54,9	9,3	24,2	38,5	53,4	20.32.9,48				9,49			20.33.5,20			T.
	29 Capricorni.....	51,2	5,2	19,2	33,0	47,3	1,2	15,1	21.6.33,17				33,17			21.7.28,91			T.
	ι Capricorni.....	....	32,0	46,0	0,2	14,4	28,5	....	21.13.0,22				0,23			21.13.55,97			T.
	β Aquarii.....	5,8	19,2	32,6	46,3	0,1	13,3	26,9	21.22.46,32				46,37	55,70		21.23.42,12			T.
	α Aquarii.....	30,9	44,3	57,8	11,2	25,1	38,1	51,7	21.57.11,20				11,39	55,84		21.58.7,17			T.
	Neptune.....	11,8	25,4	38,9	52,8	6,7	20,2	33,6	22.30.52,77				52,79			22.31.48,59			T.
Aug. 21	(g) 29 Capricorni.....	....	....	....	....	46,4	0,1	14,3	21.6.32,26			-1,4	32,37		1,14	21.7.29,32			T.
	(l) ι Capricorni.....	16,3	30,7	44,3	59,0	13,2	27,2	41,2	21.12.58,85				58,96			21.13.55,91			T.
	1 L.....	41,2	56,2	10,3	24,8	39,3	53,6	7,8	21.22.24,74				24,85			21.23.21,81			T.
	(l) δ Capricorni.....	8,7	22,9	36,8	50,8	5,2	19,1	33,1	21.37.50,94				51,06			21.38.48,04			T.
	(l) α Aquarii.....	29,4	43,0	56,3	10,1	23,8	37,0	50,4	21.57.10,00				10,17	57,06					T.
	(m) Neptune.....	4,2	18,1	31,6	45,3	59,3	13,1	26,2	22.30.45,40				45,52			22.31.42,54			T.
	α Pegasi.....	41,4	55,1	9,0	23,1	37,2	50,9	4,6	22.56.23,04				23,18	56,98					T.
	Sirius.....	53,1	7,1	20,8	35,1	49,2	3,2	17,0	6.37.35,07				35,19	57,33	1,13	6.38.32,57			T.
	Castor.....	....	32,5	48,1	4,1	20,3	26,0	51,9	7.24.4,20				4,25	57,41		7.25.1,67			T.
	Procyon.....	49,2	2,2	16,0	29,6	43,2	56,7	10,2	7.30.29,59				29,77	57,30		7.31.27,19			T.
	Pollux.....	24,3	40,2	55,2	10,6	26,1	41,3	56,6	7.35.10,61				10,67	57,37		7.36.8,10			T.
Aug. 22	(n) ⊙ 1 L.....	45,0	58,3	12,2	26,0	40,0	53,9	7,3	10.2.26,10				26,26			10.3.23,80			T.
	⊙ 2 L.....	....	8,2	22,1	36,0	50,0	3,6	17,2	10.4.35,96				36,12			10.5.33,66			T.
	(o) α Aquarii.....	28,4	41,9	55,2	8,8	22,3	36,0	49,3	21.57.8,85				9,02	58,22		21.58.7,13			T.
	(p) 1 L.....	55,0	9,2	23,2	37,2	52,0	6,0	20,2	22.11.37,55				37,66			22.12.35,77			T.
	(q) 2 L.....	....	....	28,6	43,0	57,2	11,2	25,4	22.13.42,88				42,99			22.14.41,11			T.
	(r) σ Aquarii.....	5,2	19,2	32,4	46,5	0,5	14,0	27,6	22.21.46,49				46,60			22.22.44,72			T.
	(m) Neptune.....	57,2	10,8	24,3	38,0	52,0	5,5	....	22.30.38,13				38,25			22.31.36,38			T.
	λ Aquarii.....	10,6	24,2	37,4	51,3	5,1	18,6	32,1	22.43.51,33				51,46			22.44.49,60			T.
	α Pegasi.....	40,1	54,1	7,6	21,5	35,9	49,6	3,5	22.56.21,75				21,89	58,28		22.57.20,04			T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40^s.344, -26^s.892, -13^s.573, -0^s.060, +13^s.618, +26^s.913, +40^s.337.

(a) Cloud. (b) The borders of a spot near 2 L passed wire II at 9.41.28 and 9.41.29. (c) Wire III doubtful. (d) The reduction to the meridian = +1^s.06 by special calculation. (e) The last four wires have been diminished 10^s. (f) Cloudy before and after this observation. (g) After clearing. (h) 2 L hid by cloud. (i) This observation, taken at only two wires, was inadvertently used for clock-error. (k) Densely clouded. (l) Unsteadiness. (m) Faint. (n) Cloudy at times: some wires of 1 L doubtful. (o) Just after clearing. (p) Not quite full. (q) The counting was found to be 1^s slow: correction applied accordingly. (r) All the wires, except I and II, have been increased 30^s.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Aug. 22	Sirius.....	51,9	5,5	19,6	33,5	47,9	1,9	15,9	6.37.33,74	-1,2	+1,0	-1,4	33,87	58,67	1,27	6.38.32,38			T.
	Procyon.....	48,1	1,3	14,6	28,3	42,1	55,5	8,9	7.30.28,40				28,61	58,48		7.31.27,17			T.
	Pollux.....	23,4	38,6	54,1	9,3	24,8	40,1	55,3	7.35.9,38				9,48	58,58		7.36.8,04			T.
Aug. 23	☉ 1 L.....	25,1	39,0	52,3	6,4	20,3	33,8	47,9	10.6.6,40				6,59			10.7.5,28			T.
	(a) ☉ 2 L.....	35,0	....	....	....	30,0	....	57,2	10.8.16,09				16,28			10.9.14,98			T.
	(a) Spica.....	38,4	52,1	6,0	19,4	33,2	....	....	13.16.19,50				19,63	58,77		13.17.18,49			T.
	Arcturus.....	7,7	22,1	36,2	50,4	5,2	19,2	33,5	14.7.50,61				50,76	58,91		14.8.49,67			T.
	μ ¹ Sagittarii.....	....	21,7	36,1	50,6	5,1	19,5	....	18.3.50,60				50,73	59,11		18.4.49,84			T.
	δ Ursæ Minoris..	28,3	15,3	0,7	....	....	23,5	11,0	18.19.49,54				49,66			18.19.49,54			T.
	Bessel xxi. 90.....	47,8	1,9	15,7	....	43,3	57,1	10,9	21.4.29,44				29,57			21.5.28,84			T.
	H. C. 41276....	3,3	17,7	31,9	46,3	0,9	15,0	29,4	21.7.46,36				46,49			21.8.45,77			T.
	Bessel xxi. 252..	55,3	9,2	23,1	37,0	51,2	4,9	18,6	21.10.37,04				37,17			21.11.36,45			T.
	H. C. 41544....	54,3	8,1	21,6	35,4	49,5	3,3	17,0	21.14.35,60				35,73			21.15.35,01			T.
	(b) Bessel xxi. 441..	32,3	46,4	0,0	14,0	23,2	42,3	55,5	21.18.14,10				14,23			21.19.13,51			T.
	β Aquarii.....	2,2	15,5	29,1	42,6	56,5	9,8	23,3	21.22.42,71				42,87	59,21		21.23.42,16			T.
	(c) Bessel xxi. 638..	19,0	32,3	46,0	59,9	13,8	27,3	41,0	21.25.59,90				0,04			21.26.59,33			T.
	(d) Bessel xxi. 717..	....	....	58,9	....	26,3	40,4	54,2	21.29.12,71				12,84			21.30.12,14			T.
	(e) *N.P.D. 102°.45'.	39,0	53,0	....	20,0	....	48,1	1,6	21.32.20,35				20,48			21.33.19,78			T.
	Bessel xxi. 902..	30,9	44,3	58,0	12,0	26,3	40,0	53,8	21.36.12,18				12,31			21.37.11,61			T.
	Bessel xxi. 988..	40,0	53,7	7,6	21,5	35,5	49,2	3,3	21.40.21,54				21,67			21.41.20,98			T.
	Bessel xxi. 1053.	52,2	5,9	19,5	33,2	47,0	0,4	14,2	21.43.33,20				33,34			21.44.32,65			T.
	B.A.C. 7639....	50,4	4,9	18,9	33,2	47,5	1,6	15,9	21.47.33,20				33,32			21.48.32,63			T.
	α Aquarii.....	27,3	41,0	54,2	7,7	21,3	34,8	48,2	21.57.7,80				7,99	59,25		21.58.7,31			T.
	Neptune.....	....	3,4	17,1	31,0	44,2	58,2	....	22.30.30,78				30,92			22.31.30,27			T.
	λ Aquarii.....	9,4	23,0	36,4	50,2	3,9	17,3	31,1	22.43.50,18				50,33			22.44.49,69			T.
	α Pegasi.....	38,8	53,1	6,3	20,4	34,6	48,4	2,2	22.56.20,54				20,71	59,47		22.57.20,09			T.
	γ 2 L.....	19,5	33,2	47,3	1,5	15,7	29,4	43,5	23.2.1,44				1,58			23.3.0,96			T.
	λ Piscium.....	46,1	59,5	13,0	26,4	40,2	53,4	6,8	23.33.26,49				26,69			23.34.26,09			T.
	20 Piscium.....	36,4	49,7	3,3	16,7	30,4	43,5	57,3	23.39.16,76				16,94			23.40.16,35			T.
Aug. 24	(f) ☉ 1 L.....	....	....	....	....	0,2	....	27,2	10.9.46,20				46,39		1,33	10.10.46,44			T.
	☉ 2 L.....	....	....	41,3	55,2	9,5	....	....	10.11.55,34				55,53			10.12.55,58			T.
	μ ¹ Sagittarii.....	....	20,4	34,5	49,2	4,1	18,2	32,3	18.3.49,24				49,37	60,46		18.4.49,86			T.
	γ Aquilæ.....	28,3	42,2	55,4	9,3	23,1	36,4	50,3	19.38.9,29				9,48	60,53		19.39.10,06			T.
	α Aquilæ.....	48,4	2,3	15,3	29,4	43,3	56,4	10,1	19.42.29,32				29,52	60,64		19.43.30,10			T.
	β Aquilæ.....	17,6	31,2	44,3	58,1	12,0	25,4	39,0	19.46.58,23				58,44	60,60		19.47.59,03			T.
Aug. 25	Pollux.....	19,5	35,1	50,2	5,4	21,1	36,3	51,2	7.35.5,54				5,64	62,49	1,28	7.36.8,06			T.
	(g) α Hydræ.....	....	43,2	56,6	10,2	24,1	37,4	51,1	9.19.10,31				10,46	62,51		9.20.12,98			T.
Aug. 26	☉ 1 L.....	....	....	....	3,9	18,0	31,2	45,2	10.17.3,98				4,17			10.18.6,74			T.
	☉ 2 L.....	32,4	46,0	59,5	13,4	27,3	41,0	54,7	10.19.13,47				13,66			10.20.16,23			T.
	Arcturus.....	3,6	18,1	32,3	46,8	1,2	15,2	29,4	14.7.46,66				46,81	62,82		14.8.49,59			T.
	(h) α Aquilæ.....	46,2	59,4	13,2	26,8	41,2	54,2	7,4	19.42.26,92				27,12	63,02		19.43.30,19			T.
	β Aquilæ.....	15,2	28,8	42,3	55,6	9,3	23,1	36,4	19.46.55,81				56,02	63,01		19.47.59,10			T.
	(i) β Aquarii.....	58,4	11,8	25,3	38,8	52,5	6,0	19,6	21.22.38,92				39,07	63,01		21.23.42,23			T.
	(k) α Aquarii.....	23,6	37,0	50,3	3,9	17,4	30,6	44,2	21.57.3,86				4,05	63,21		21.58.7,24			T.
	(l) Neptune.....	....	41,2	54,4	8,3	22,2	35,9	....	22.30.8,40				8,54			22.31.11,76			T.
	α Pegasi.....	35,0	48,7	2,8	16,7	30,8	44,5	58,4	22.56.16,70				16,87	63,34		22.57.20,11			T.
Aug. 28	☉ 1 L.....	39,4	52,9	6,6	20,4	34,2	47,8	1,3	10.25.20,37			-3,4	20,47		1,30	10.25.25,68			C.
	☉ 2 L.....	....	....	16,1	29,5	43,4	57,1	10,6	10.27.29,66				29,76			10.27.34,97			C.
	(m) Arcturus.....	1,2	15,5	29,7	44,1	58,6	12,7	27,0	14.8.44,11				44,18	5,42					C.
Aug. 29	(n) ☉ 1 L.....	17,3	30,8	44,5	58,2	....	25,6	39,4	10.28.58,28				58,38		1,29	10.29.4,87			C.
	☉ 2 L.....	....	....	53,4	7,2	21,1	34,7	48,2	10.31.7,26				7,36			10.31.13,86			C.
	β Aquarii.....	54,4	8,0	21,3	34,8	48,7	2,1	15,6	21.23.34,99				35,04	7,05		21.23.42,12			C.
	(c) Bessel xxi. 708..	9,2	22,8	36,2	50,1	4,0	17,4	30,8	21.29.50,07				50,09			21.29.57,18			C.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

Aug. 27, 22^h, Hardy was put forward 1^m.

(a) Cloud. (b) Wires VI and VII taken confusedly. The noted time has been decreased 1^m. 'A smaller or less N.P.D. followed.' (c) Faint. (d) The last three wires have been increased 10^s. (e) 'Too faint.' Observed for H. C. 42238, the N.P.D. of which appears to be erroneous. (f) Dense cloud: partly without the dark glass. The observation of 1 L is retained, the other being taken at only three wires. (g) Extremely faint and unsteady. (h) Great tremor and bad definition. Disturbance at wire V. (i) Very unsteady. (k) Irregular motion. The counting was 1^s slow: correction applied. (l) Good. (m) Very tremulous. (n) Clouds.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Aug. 29	Bessel xxi. 995.	50,2	3,9	17,2	31,0	45,0	58,2	12,0	21. 41. 31,07	-1,2	+1,0	-3,4	31,09		1,29	21. 41. 38,18			C.
	α Aquarii.....	19,8	33,2	46,5	59,9	13,7	27,1	40,5	21. 58. 0,10				0,19	7,08		21. 58. 7,30			C.
	(a) α Pegasi.....	31,3	45,2	59,0	12,8	27,0	40,6	54,6	22. 57. 12,93				13,02	7,22		22. 57. 20,19			C.
	Castor.....	6,5	22,3	38,1	54,0	10,3	26,0	41,8	7. 24. 54,14				54,18	7,69	1,29	7. 25. 1,80			C.
	Procyon.....	39,1	52,6	6,0	19,5	33,4	46,6	0,2	7. 31. 19,63				19,74	7,50		7. 31. 27,36			C.
	Pollux.....	14,6	29,9	45,1	0,5	16,0	31,2	46,6	7. 36. 0,55				0,59	7,64		7. 36. 8,22			C.
Aug. 30	(b) \odot 1 L.....	54,6	8,2	21,7	35,5	49,4	2,7	....	10. 32. 35,51				35,61			10. 32. 43,40			C.
	\odot 2 L.....	....	....	30,5	44,3	58,2	12,0	25,5	10. 34. 44,45				44,55			10. 34. 52,34			C.
	B.A.C. 6386.	9,3	23,3	37,8	52,1	6,9	21,0	35,3	18. 38. 52,24				52,24			18. 39. 0,46			T.
	β Lyræ.....	38,2	54,1	10,1	26,2	42,5	58,4	14,4	18. 44. 26,27				26,30	8,15		18. 44. 34,53			T.
	(c) H. C. 35552.....	37,0	50,7	5,0	19,2	....	47,2	2,0	18. 55. 19,23				19,23			18. 55. 27,47			T.
	ζ Aquilæ.....	43,3	57,1	10,9	24,8	38,7	52,5	6,3	18. 58. 24,80				24,89	8,14		18. 58. 33,13			T.
	(d) H. C. 35932.....	37,0	51,3	5,9	21,1	35,8	50,2	4,4	19. 3. 20,81				20,80			19. 3. 29,04			T.
	γ Aquilæ.....	20,6	34,3	47,8	1,5	15,3	29,0	42,5	19. 39. 1,57				1,67	8,29		19. 39. 9,95			T.
	α Aquilæ.....	40,8	54,3	7,9	21,4	35,3	43,9	2,3	19. 43. 21,55				21,66	8,45		19. 43. 29,94			T.
	β Aquilæ.....	10,1	23,4	36,9	50,4	4,3	17,6	31,1	19. 47. 50,54				50,65	8,35		19. 47. 58,93			T.
	β Aquarii.....	53,2	6,3	20,1	33,4	47,3	0,5	14,3	21. 23. 33,59				33,64	8,45		21. 23. 42,01			T.
	α Aquarii.....	18,3	31,6	45,2	58,8	12,4	25,7	39,1	21. 57. 58,73				58,82	8,45		21. 58. 7,22			T.
Sept. 1	Sirius.....	39,3	53,3	7,2	21,3	35,3	49,5	3,5	6. 38. 21,34				21,34	11,45	1,23	6. 38. 32,68			T.
	(e) δ 2 L.....	47,0	1,8	16,2	31,1	46,1	0,3	15,2	7. 7. 31,10				31,20			7. 7. 42,57			T.
Sept. 2	(f) Arcturus.....	54,6	9,1	23,3	37,8	52,2	6,4	20,6	14. 8. 37,72				37,79	11,74		14. 8. 49,52			T.
	α Coronæ.....	23,6	38,8	54,0	9,1	24,4	39,4	54,5	15. 28. 9,12				9,16	11,67		15. 28. 20,95			T.
	α Serpentis.....	1,3	15,1	28,3	42,0	55,7	9,1	22,8	15. 36. 42,04				42,14	11,81		15. 36. 53,94			T.
	(g) H. C. 34433.....	44,2	58,1	12,3	26,7	41,2	55,2	9,6	18. 28. 26,76				26,76			18. 28. 38,71			T.
	γ Aquilæ.....	16,9	30,5	44,1	57,8	11,5	25,1	39,0	19. 38. 57,85				57,95	11,97		19. 39. 9,96			T.
	α Aquilæ.....	37,2	50,7	4,2	18,0	31,5	45,2	58,7	19. 43. 17,93				18,03	12,05		19. 43. 30,04			T.
	β Aquilæ.....	6,3	19,7	33,2	46,8	0,5	14,0	27,4	19. 47. 46,84				46,95	12,02		19. 47. 58,96			T.
	H. C. 38104.....	17,0	20,8	35,0	49,1	3,2	17,1	31,1	19. 51. 49,05				49,05			19. 52. 1,07			T.
	(h) H. C. 38192.....	....	24,3	38,2	52,1	6,5	20,3	....	19. 53. 52,28				52,28			19. 54. 4,30			T.
	B.A.C. 6914.....	....	8,9	23,1	37,5	52,2	6,4	....	20. 0. 37,62				37,61			20. 0. 49,64			T.
	(h)(i) H. C. 38740.....	9,9	24,0	38,2	52,8	....	....	35,1	20. 5. 52,61				52,61			20. 6. 4,64			T.
	(k) α^s Capricorni.....	52,7	6,4	20,2	34,1	48,1	1,8	15,6	20. 9. 34,13				34,13	12,03		20. 9. 46,16			T.
	Bessel xx. 445.....	....	....	31,2	45,1	59,2	13,0	26,9	20. 17. 45,20				45,20			20. 17. 57,24			T.
	(l) B.A.C. 7069.....	33,1	47,3	2,1	17,0	31,9	46,1	0,3	20. 23. 16,83				16,82			20. 23. 28,86			T.
	(h) B.A.C. 7113.....	....	33,2	....	2,9	....	32,9	....	20. 29. 3,01				3,03			20. 29. 15,08			T.
	(m) Bessel xx. 823.....	24,7	38,2	52,2	6,3	20,5	34,3	48,5	20. 32. 6,39				6,38			20. 32. 18,43			T.
	(n) Bessel xx. 965.....	57,6	11,2	25,1	38,9	53,1	7,0	21,1	20. 37. 39,15				39,14			20. 37. 51,20			T.
	α Aquarii.....	14,7	28,1	41,3	54,9	8,7	22,1	35,6	21. 57. 55,06				55,14	12,13		21. 58. 7,27			T.
	(o) Bessel xxii. 49.....	....	34,0	47,4	1,2	14,9	28,4	....	22. 3. 1,18				1,21			22. 3. 13,34			T.
	Bessel xxii. 164.....	29,1	43,1	57,1	11,2	25,2	39,0	52,8	22. 8. 11,07				11,07			22. 8. 23,20			T.
	Bessel xxii. 230.....	42,8	56,3	10,1	23,9	38,0	51,7	5,3	22. 11. 24,01				24,01			22. 11. 36,15			T.
	Bessel xxii. 315.....	49,4	2,8	16,5	....	43,3	56,9	10,8	22. 15. 29,95				30,00			22. 15. 42,14			T.
	(p) Bessel xxii. 415.....	37,6	51,6	5,2	18,9	33,1	46,8	0,7	22. 19. 19,13				19,13			22. 19. 31,27			T.
	(q) Neptune.....	....	49,0	2,4	16,1	30,2	43,6	....	22. 30. 16,26				16,27			22. 30. 28,42			T.
	α Pegasi.....	26,5	40,2	53,9	7,9	22,1	35,9	49,7	22. 57. 8,03				8,11	12,15		22. 57. 20,29			T.
	α Andromedæ.....	43,3	58,8	13,8	29,2	44,7	59,8	15,1	0. 0. 29,25				29,29	12,17		0. 0. 41,52			T.
Sept. 3	Procyon.....	33,1	46,3	0,0	13,5	27,2	40,6	54,1	7. 31. 13,54				13,65	13,71	1,12	7. 31. 27,50			T.
	Pollux.....	8,5	23,9	39,2	54,4	9,9	25,1	40,2	7. 35. 54,46				54,50	13,86		7. 36. 8,36			T.
Sept. 4	(r) \odot 1 L.....	57,2	11,1	25,0	38,4	....	5,8	....	10. 50. 38,41				38,51			10. 50. 52,52			T.
	μ^1 Sagittarii.....	52,2	6,6	20,7	35,3	50,1	4,2	18,3	18. 4. 35,34				35,33	14,33		18. 4. 49,67			T.
	(s) δ Ursæ Minoris.....	....	....	....	26,0	18,5	3,0	....	18. 20. 28,04				29,33			....			T.
	(t) H. C. 38782.....	20,5	35,1	49,7	4,6	19,6	34,1	48,9	20. 7. 4,64				4,64			20. 7. 19,08			T.
	α^s Capricorni.....	50,3	4,1	17,6	31,3	45,4	59,2	13,1	20. 9. 31,57				31,57	14,58		20. 9. 46,01			T.
	H. C. 39116.....	37,0	51,2	5,3	19,6	34,0	48,0	2,2	20. 14. 19,62				19,62			20. 14. 34,07			T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40',344, - 26',892, - 13',573, - 0',060, + 13',618, + 26',913, + 40',337.

(a) Temp. 53°,9. (b) Ragged and unsteady. (c) Too faint. (d) Mere guess at times: the sky towards the south was very misty. The counting was 1' fast: correction applied. (e) Very faint: sometimes hid by cloud. (f) Tremor. (g) 'The south-following of two 15' apart.' The other is H. C. 34423. (h) Very faint. (i) Mist toward the South. (k) Counting 1' slow: correction applied. (l) 'The north-preceding and brighter of two.' The other is B.A.C. 7070. (m) 'One of Mag. 9 south-preceding and another of Mag. 8½ north-preceding.' The latter is Bessel xx. 819. (n) 'The south-following of two equal.' (o) 'The preceding of two equal.' Wires IV, V and VI have been decreased 1'. (p) 'The preceding and brighter of two.' (q) 'Good.' (r) Cloudy at the last three wires: wire VI without the dark glass. (s) Wire VI doubtful. (t) 'The south-following and brighter of two.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				"	"	"	
Sept. 4	Bessel xx. 445...	1,1	15,0	28,6	43,0	56,8	10,6	24,3	20.17.42,77	-1,2	+0,9	-3,4	42,77		1,12	20.17.57,22			T.
	B.A.C. 7069.....	30,4	45,2	59,6	14,5	29,2	43,6	58,2	20.23.14,38				14,37			20.23.28,82			T.
	(a) H. C. 39671.....	....	13,4	27,2	41,3	55,3	9,1	....	20.27.41,26				41,25			20.27.55,71			T.
	Procyon.....	31,7	45,3	58,6	12,3	26,0	39,4	53,1	7.31.12,34				12,44	14,94		7.31.27,37			T.
	Pollux.....	....	22,5	38,1	53,2	9,0	24,0	....	7.35.53,33				53,40	14,99		7.36.8,33			T.
Sept. 5	(b) ☉ 1 L.....	33,3	47,0	0,5	14,0	27,7	41,2	54,8	10.54.14,07				14,17			10.54.29,25			T.
	☉ 2 L.....	41,9	55,4	8,8	22,5	36,4	49,4	3,3	10.56.22,53				22,63			10.56.37,72			T.
	(c) α Coronæ.....	20,2	35,3	50,4	....	20,6	....	....	15.28.5,53				5,57	15,21		15.28.20,87			T.
Sept. 6	(d) ☉ 1 L.....	....	....	36,0	50,0	3,4	17,2	30,4	10.57.49,83			+1,0	49,93		1,12	10.58.6,20			T.
	☉ 2 L.....	17,6	30,8	44,4	58,3	12,0	25,5	38,9	10.59.58,22				58,32			11.0.14,59			T.
	μ ¹ Sagittarii.....	....	4,3	18,5	33,0	47,6	1,9	....	18.4.33,06				33,05	16,58		18.4.49,65			T.
	β Aquilæ.....	1,5	15,1	28,5	41,9	55,5	9,2	22,4	19.47.42,01				42,12	16,80		19.47.58,80			T.
	α Capricorni.....	47,9	1,7	15,2	29,3	43,3	57,1	11,1	20.9.29,38				29,38	16,75		20.9.46,08			T.
	Bessel xx. 900..	14,2	28,1	42,1	56,2	10,2	24,2	38,1	20.34.56,16				56,15			20.35.12,87			T.
	(e) Bessel xx. 965....	52,4	6,3	20,4	34,0	48,5	2,3	16,3	20.37.34,31				34,31			20.37.51,03			T.
	Bessel xx. 1106..	4,2	17,9	31,7	46,0	0,0	13,8	27,6	20.42.45,89				45,89			20.43.2,62			T.
	Bessel xx. 1203..	10,8	24,5	38,2	52,2	6,2	20,1	33,9	20.46.52,27				52,27			20.47.9,00			T.
	B.A.C. 7263.....	....	....	48,1	2,2	16,5	30,4	44,3	20.49.2,27				2,27			20.49.19,00			T.
	H. C. 40616.....	35,1	49,9	4,1	18,9	33,8	48,2	3,0	20.52.19,00				18,99			20.52.35,72			T.
	Bessel xx. 1419..	27,0	40,9	54,4	8,6	22,8	36,2	50,1	20.55.8,58				8,58			20.55.25,32			T.
	(f) H. C. 40866.....	55,5	9,6	23,5	37,5	51,4	....	....	20.58.37,52				37,52			20.58.54,26			T.
	β Aquarii.....	44,8	58,2	11,6	25,5	39,2	52,4	5,9	21.23.25,37				25,42	16,65		21.23.42,18			T.
	(g) α Aquarii.....	10,1	23,3	36,9	50,2	3,6	17,2	30,5	21.57.50,25				50,34	16,93		21.58.7,12			T.
	(h) α Andromedæ...	39,1	54,2	9,2	24,8	40,2	55,2	10,6	0.0.24,76				24,80	16,71		0.0.41,68			T.
	(i) Flora.....	....	24,6	37,9	51,3	5,3	18,5	32,2	0.34.51,51				51,54			0.35.8,45			T.
	(h)(k) Regulus.....	24,2	38,0	51,6	5,4	19,4	33,1	46,9	10.0.5,51				5,60	17,24		1,10	10.0.22,93			T.
Sept. 7	(h)(l) ☉ 1 L.....	44,4	58,1	11,0	24,8	38,8	52,4	5,9	11.1.25,06				25,17			11.1.42,55			T.
	(m) Spica.....	19,7	33,4	47,0	0,7	14,6	28,1	41,8	13.17.0,75				0,77	17,50		13.17.18,25			T.
	Arcturus.....	49,1	3,2	17,4	31,9	46,3	0,7	14,9	14.8.31,93				32,01	17,45	14.8.49,53			T.	
	μ ¹ Sagittarii.....	48,8	3,1	17,2	31,8	46,6	0,6	15,1	18.4.31,88				31,87	17,75	18.4.49,57			T.	
	H. C. 33974.....	57,3	11,2	25,3	39,5	54,0	8,0	22,1	18.17.39,63				39,63		18.17.57,34			T.	
	(n) H. C. 34183.....	32,9	47,0	1,1	15,4	29,8	44,0	58,1	18.22.15,47				15,47		18.22.33,18			T.	
	H. C. 34339.....	28,2	42,1	56,2	10,3	24,6	38,4	52,4	18.26.10,31				10,31		18.26.28,03			T.	
	α Aquilæ.....	31,3	44,9	58,3	12,1	25,8	39,4	53,1	19.43.12,13				12,24	17,78	19.43.30,01			T.	
	β Aquilæ.....	0,4	14,0	27,3	41,0	54,6	8,1	21,5	19.47.40,98				41,09	17,82	19.47.58,87			T.	
	β Aquarii.....	43,6	57,2	10,3	24,2	38,1	51,2	4,9	21.23.24,21				24,26	17,81	21.23.42,11			T.	
	(o) α Aquarii.....	9,0	22,2	35,7	49,1	2,9	16,2	29,4	21.57.49,22				49,31	17,96	21.58.7,19			T.	
	(p) Neptune.....	....	12,3	25,9	40,0	53,3	7,1	....	22.29.39,72				39,73		22.29.57,63			T.	
Sept. 10	(q) ☉ 1 L.....	46,0	0,0	14,1	28,2	42,6	56,8	11,0	14.58.28,39			-1,8	28,50		1,12	14.58.49,64			T.
	α Serpentis.....	52,0	5,4	18,9	32,5	46,2	59,6	13,2	15.36.32,54				32,72	21,10		15.36.53,89			T.
	α Pegasi.....	....	31,1	44,4	58,6	12,6	26,3	40,2	22.56.58,59				58,67	21,63		22.57.20,18			T.
	α Andromedæ...	34,2	49,3	4,6	20,1	35,3	50,4	5,8	0.0.19,95				20,04	21,51		0.0.41,60			T.
	(r) Bessel o. 560....	....	....	14,3	27,4	41,2	....	8,7	0.32.27,71				27,84			0.32.49,42			T.
Flora.....	....	....	....	....	....	....	10,0	0.32.29,24				29,37		0.32.50,95			T.		
Sept. 11	Neptune.....	....	43,6	57,1	10,9	24,7	38,3	....	22.29.10,92				11,03		1,11	22.29.33,56			T.
	α Andromedæ...	....	....	3,2	19,2	34,2	49,3	4,4	0.0.18,86				18,95	22,61					
	(s) Flora.....	8,6	22,1	35,7	49,5	3,2	16,6	30,3	0.31.49,43				49,56			0.32.12,19			T.
	(t) Bessel o. 560....	....	....	....	....	40,3	53,9	7,4	0.32.26,62				26,75			0.32.49,38			T.
	β Ceti.....	0,5	14,9	28,9	43,2	57,7	11,4	26,0	0.35.43,23				43,34	22,61					
(m) Pollux.....	59,2	15,1	30,1	45,4	1,1	16,2	31,3	7.35.45,49				45,58	23,00	1,11	7.36.8,57			T.	
Sept. 12	(u)(h) ☉ 1 L.....	....	52,9	6,1	20,0	33,2	47,0	0,5	11.19.19,86				20,04			11.19.43,20			T.
	☉ 2 L.....	47,1	0,7	13,9	27,6	41,2	....	8,1	11.21.27,61				27,79		11.21.50,96			T.	
	(u) Polaris SP.....	50,5	....	1,0	44,5	....	59,5	37,5	13.5.43,87				42,10					T.	

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',344, -26',892, -13',573, -0',060, +13',618, +26',913, +40',337.

(a) Shortly after this observation the sky suddenly became completely overcast. (b) Limbs waving and ragged. Wire 1 of 2 L. taken hurriedly. (c) Cloud. The noted times were 10' greater. (d) Great motion, and clouds continually passing: 1 L. hid at wires I and II. (e) The south-following of two equal. (f) Clouded after wire V. (g) The counting was 1' slow: wires VI and VII have been increased 1'. (h) Great motion. (i) 'Good.' The Planet was judged to be of Mag. 8.9. (k) Very faint. (l) 'Unsatisfactory.' 2 L. hid by cloud. (m) The counting was 1' slow: correction applied. (n) The minutes set down have been diminished 1m. (o) The sky was generally cloudy this evening and sometimes completely overcast. (p) Very faint from cloud. (q) The times set down were 10' greater. (r) Close to Flora, for which it was mistaken. Both objects hid at times by clouds. (s) 'Good observation: the Planet bright.' (t) By this observation it appeared that the following object Sept. 10 was the Planet. (u) Unsatisfactory: clouds continually passing.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Sept. 12	1 L.....	9,4	24,1	38,4	53,2	7,9	22,1	36,9	16.44.53,14	-1,2	+1,0	-1,8	53,24		1,11	16.45.16,66			T.
	η Ophiuchi.....	42,8	56,9	10,6	24,6	39,0	52,8	6,8	17.1.24,79				24,89			17.1.48,32			T.
	θ Ophiuchi.....	56,8	11,4	26,2	41,3	55,9	10,9		17.12.26,34				26,45			17.12.49,89			T.
	α Ophiuchi.....	54,7	8,7	22,3	36,1	50,2	3,7	17,4	17.27.36,16				36,32	23,44		17.27.59,77			T.
	μ^1 Sagittarii.....	56,9	11,5	26,0	40,5	54,9	....	....	18.4.25,96				26,06			18.4.49,54			T.
	δ Ursæ Minoris.....	55,5	....	28,0	15,7	7,0	52,0	....	18.20.17,07				17,44						T.
	γ Aquilæ.....	5,0	18,7	32,2	46,1	59,9	13,3	27,0	19.38.46,03				46,21	23,58		19.39.9,76			T.
	(a) α Aquilæ.....	39,2	52,4	6,2	20,0	33,5	47,0		19.43.6,25				6,43	23,52		19.43.29,98			T.
	β Aquarii.....	....	....	....	18,2	32,1	45,5	59,1	21.23.18,41				18,55	23,50		21.23.42,18			T.
	α Aquarii.....	3,2	16,5	30,1	43,5	57,2	10,4	23,9	21.57.43,54				43,71	23,55		21.58.7,37			T.
	Neptune.....	....	....	49,9	3,8	17,5	31,1	44,5	22.29.3,69				3,80			22.29.27,48			T.
	α Pegasi.....	14,6	28,6	42,6	56,3	10,5	24,2	38,1	22.56.56,42				56,57	23,74		22.57.20,27			T.
	(b) α Andromedæ.....	....	....	2,1	17,8	33,1	48,2	3,7	0.0.17,72				17,81	23,76		0.0.41,56			B.
	(b) Flora.....	27,9	41,1	54,9	8,2	22,1	35,7	49,1	0.31.8,43				8,56			0.31.32,33			B.
	(b) β Ceti.....	59,2	13,1	27,7	42,2	56,4	10,3	24,7	0.35.41,94				42,04	23,92		0.36.5,82			B.
Sept. 13	(c) 1 L.....	13,1	27,0	40,2	53,9	7,9	21,0	34,7	11.22.53,97				54,15		1,06	11.23.18,39			T.
	2 L.....	21,6	35,0	48,6	2,1	15,8	29,2	42,6	11.25.2,13				2,31			11.25.26,55			T.
	α Ophiuchi.....	53,6	7,4	21,2	35,0	49,1	2,4	16,4	17.27.35,01				35,17	24,57		17.27.59,68			T.
	1 L.....	12,5	27,1	41,7	56,5	11,3	26,0	40,6	17.37.56,53				56,64			17.38.21,16			T.
	μ^1 Sagittarii.....	41,6	56,0	10,5	24,7	39,4	53,7	8,1	18.4.24,86				24,96	24,55		18.4.49,50			T.
	λ Sagittarii.....	35,4	50,3	5,1	20,0	35,4	50,0	4,8	18.18.20,14				20,25			18.18.44,80			T.
	(d) H. C. 34860.....	18,3	32,1	46,4	0,8	15,3	29,2	43,7	18.39.0,82				0,93			18.39.25,49			T.
	β Aquilæ.....	53,4	7,0	20,5	34,1	47,6	1,1	14,6	19.47.34,04				34,23	24,60		19.47.58,85			T.
	Bessel xix. 1418.....	7,0	20,4	34,6	48,8	2,4	16,5	30,5	19.55.48,60				48,70			19.56.13,32			T.
	B.A.C. 6914.....	41,7	55,9	10,3	24,8	39,3	53,4	8,0	20.0.24,77				24,87			20.0.49,50			T.
	(e) H. C. 38705.....	21,5	35,6	49,6	3,9	18,1	32,1	46,2	20.5.3,86				3,96			20.5.28,59			T.
	α^2 Capricorni.....	39,8	53,6	7,4	21,2	35,4	49,0	2,8	20.9.21,31				21,42	24,63		20.9.46,05			T.
	β Aquarii.....	56,6	50,3	3,8	17,3	31,0	44,3	57,8	21.23.17,30				17,44	24,60		21.23.42,12			T.
	Neptune.....	15,8	29,6	43,1	56,9	10,6	24,2	37,9	22.28.56,87				56,98			22.29.21,71			T.
	Bessel xxiii. 808.....	37,0	50,4	3,4	17,1	30,6	44,1	57,4	23.39.17,15				17,33			23.39.42,12			T.
	(f) Bessel xxiii. 869.....	24,8	38,2	51,4	5,1	18,5	31,8	45,4	23.42.5,03				5,21			23.42.30,00			T.
	Bessel xxiii. 922.....	7,2	20,3	33,8	47,2	1,1	14,4	27,9	23.44.47,42				47,60			23.45.12,39			T.
	α Andromedæ.....	31,1	46,2	1,3	16,8	32,2	47,2	2,6	0.0.16,77				16,86	24,72		0.0.41,66			T.
	(g) Flora.....	45,1	59,0	12,2	26,1	39,9	53,2	6,9	0.30.26,06				26,19			0.30.51,01			T.
	(h)(i) β Ceti.....	58,3	12,3	26,7	41,1	55,3	9,2	23,5	0.35.40,91				41,02	24,96		0.36.5,85			T.
Sept. 14	(k) 1 L.....	48,0	1,2	14,8	28,3	42,1	55,3	9,1	11.26.28,40			+1,3	28,60		1,09	11.26.53,89			T.
	2 L.....	56,0	9,4	22,9	36,2	50,1	3,5	16,9	11.28.36,43				36,63			11.29.1,92			T.
	(l) α Pegasi.....	26,4	40,3	54,2	8,4	22,1	....	....	22.56.54,28				54,45	25,86					T.
	(h) α Andromedæ.....	30,1	45,1	0,4	15,3	31,1	46,0	1,5	0.0.15,65				15,76	25,82					T.
Sept. 16	Flora.....	1,3	15,2	28,5	42,2	56,1	9,4	23,2	0.29.42,27				42,39			0.30.8,27			T.
	(m) α Ophiuchi.....	50,4	3,8	17,8	31,6	45,5	59,2	13,1	17.27.31,63				31,81	27,88	1,12	17.27.59,65			T.
	μ^1 Sagittarii.....	38,2	52,7	7,1	21,3	36,1	50,3	4,8	18.4.21,50				21,61	27,85		18.4.49,47			T.
	(n) α Aquilæ.....	21,1	34,6	48,0	1,9	15,6	29,0	42,4	19.43.1,80				2,00	27,90		19.43.29,94			T.
	Bessel xix. 1323.....	44,4	58,2	12,1	26,0	40,4	54,1	8,1	19.52.26,19				26,30			19.52.54,25			T.
	(o) B.A.C. 6889.....	59,0	13,6	27,9	42,3	57,1	11,2	....	19.55.42,41				42,52			19.56.10,47			T.
	α^2 Capricorni.....	36,4	50,3	4,0	17,9	31,9	45,6	59,3	20.9.17,92				18,03	27,98		20.9.45,99			T.
Sept. 17	(p) 1 L.....	54,0	8,5	23,1	37,6	52,5	7,0	21,7	20.14.37,77				57,88			20.15.5,84			T.
	(q) 1 L.....	31,1	44,4	57,9	11,5	25,1	38,5	52,0	11.37.11,50				11,69			11.37.40,37			T.
Sept. 18	2 L.....	38,9	52,6	5,7	19,3	33,0	46,3	59,8	11.39.19,37				19,56			11.39.48,24			T.
	(r) Victoria.....	24,7	38,2	52,2	6,0	20,1	33,8	47,5	23.40.6,07				6,25		1,03	23.40.36,57			T.
	(s) α Andromedæ.....	....	....	....	11,2	26,5	41,3	57,0	0.0.11,07				11,18	30,44		0.0.41,51			T.
	(t) Flora.....	....	....	....	36,1	49,9	3,3	17,0	0.26.36,10				36,22			0.27.6,57			T.
	β Ceti.....	53,1	7,2	21,2	35,4	50,1	4,1	18,2	0.35.35,62				35,73	30,31		0.36.6,09			T.
Sept. 18	(u) α Arietis.....	....	46,9	1,3	15,8	30,6	45,3	....	1.58.15,98				16,12	30,27		1.58.46,53			T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^s,344$, $-26^s,892$, $-13^s,573$, $-0^s,060$, $+13^s,618$, $+26^s,913$, $+40^s,337$.

(a) Wire I lost, and wires II and III doubtful, on account of disturbance. All except wire II have been diminished 1". (b) These are grouped with T's observations, no difference of personal equation being discernible. (c) The limbs waving, and clouds continually passing. (d) 'Only one star seen.' (e) 'The south-preceding of two.' (f) 'The north-preceding of two.' (g) No object near this. (h) Irregular motion. (i) Bad definition. (k) Raggedness and much waving. All the wires of 2 L have been diminished 20". (l) The sky just clear. (m) Thorough disturbance at wires I, II, and III. (n) Flaring. (o) Cloud at wire VII. (p) Cloudy after this. (q) The counting was found to be 3" slow. All the wires have been increased 39", except wire I, which was set down 32,1 and has been altered conjecturally. (r) Quite alone: considered to be of Mag. 8,9. (s) Cloud. (t) Wires lost through mistake in the time. The counting was thought to be 1" slow: correction applied. (u) Wires I and VII, taken doubtfully through dense cloud, were rejected: wires IV, V, VI have been increased 20".

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"		s.	s.	s.	h.	m.	s.
Sept. 21	⊙ 1 L.	48,5	2,0	15,3	29,0	42,8	56,0	9,4	11. 51. 29,00	-1,2	+0,9	-1,9	29,17		1,00	11. 52. 1,82			T.
	⊙ 2 L.	56,4	10,0	23,3	37,0	50,5	4,0	17,4	11. 53. 36,95				37,12			11. 54. 9,78			T.
	β Lyrae.	12,3	28,6	44,4	0,7	17,1	33,1	49,2	18. 44. 0,77				0,83	33,15		18. 44. 33,77			T.
	α Aquilæ.	16,0	29,6	43,1	56,5	10,4	24,0	37,6	19. 42. 56,74				56,91	32,91		19. 43. 29,89			T.
	β Aquarii.	28,4	41,9	55,2	8,9	22,5	36,1	49,4	21. 23. 8,92				9,05	32,93		21. 23. 42,10			T.
	α Aquarii.	53,7	7,0	20,4	34,1	47,5	1,0	14,5	21. 57. 34,03				34,19	33,03		21. 58. 7,26			T.
	Bessel xxii. 388. .	56,1	9,9	23,9	37,4	51,5	5,2	19,2	22. 17. 37,60				37,69			22. 18. 10,78			T.
	(a) Bessel xxi. 444. .	36,4	49,9	3,5	17,3	31,4	45,1	58,9	22. 20. 17,50				17,60			22. 20. 50,69			T.
	(b) Bessel xxi. 517. .	21,9	35,4	48,9	2,3	15,6	28,8	42,4	22. 24. 2,18				2,28			22. 24. 35,37			T.
	Neptune.	21,4	35,1	48,8	2,4	16,4	30,0	43,4	22. 28. 2,50				2,60			22. 28. 35,70			T.
	Bessel xxii. 672. .	22,9	36,2	49,8	3,5	17,2	31,0	44,5	22. 31. 3,58				3,68			22. 31. 36,78			T.
	65 Aquarii.	56,0	9,5	23,4	37,0	51,0	4,2	18,2	22. 34. 37,04				37,14			22. 35. 10,24			T.
	Victoria.	56,2	10,1	23,9	37,2	51,5	5,3	19,1	23. 37. 37,62				37,77			23. 38. 10,91			T.
	* N.P.D. 76°. 14'. .	43,2	57,1	10,8	24,6	38,8	52,4	6,1	23. 46. 24,71				24,86			23. 46. 58,01			T.
	27 Piscium.	48,8	2,2	15,5	29,1	42,9	56,1	9,4	23. 50. 29,15				29,29			23. 51. 2,44			T.
	H. C. 47106.	45,2	59,1	12,9	27,0	40,8	54,4	8,2	23. 53. 26,80				26,95			23. 54. 0,10			T.
	33 Piscium.	28,2	41,4	55,1	8,8	22,6	36,0	49,5	23. 57. 8,80				8,92			23. 57. 42,08			T.
	α Andromedæ.	22,4	37,9	53,0	8,2	23,9	39,0	54,3	0. 0. 8,39				8,47	33,17		0. 0. 41,63			T.
	β 2 L.	26,9	40,7	54,2	8,0	22,1	35,8	49,8	0. 22. 8,22				8,37			0. 22. 41,55			T.
	(c) Flora.						34,0	47,6	0. 24. 6,67				6,77			0. 24. 39,95			T.
	β Ceti.	50,2	4,4	18,2	32,8	47,1	1,3	15,3	0. 35. 32,76				32,86	33,21		0. 36. 6,04			T.
	20 Ceti.	9,9	23,2	36,2	50,0	3,5	16,9	30,4	0. 44. 50,01				50,16			0. 45. 23,35			T.
	(d)(e) c Piscium.	27,8	41,2	54,4	8,0	21,9	35,2	48,8	1. 0. 8,19				8,37			1. 0. 41,57			T.
Sept. 25	(f) ζ Aquilæ.	13,8	27,2	41,0	55,1	9,2	22,9	36,8	18. 57. 55,14				55,29	37,31	1,08	18. 58. 32,59			B.
	(f) δ Sagittarii.	33,1	47,3	1,6	16,0	30,2	44,1	58,8	19. 8. 15,87				15,97			19. 8. 53,28			B.
	(g) H. C. 36591.	52,4		22,1		50,4	4,4	18,8	19. 16. 35,82				35,92			19. 17. 13,24			B.
	(g) H. C. 36814.	46,7	1,2	15,8			0,3	14,7	19. 21. 30,72				30,82			19. 22. 8,14			B.
	α Aquilæ.			38,3	52,1	6,0	19,7	33,0	19. 42. 52,23				52,40	37,35		19. 43. 29,74			B.
	β Aquilæ.	40,7	54,0	7,5	21,1	34,9	48,0	1,9	19. 47. 21,15				21,33	37,32		19. 47. 58,67			B.
	(d) H. C. 38104.	41,6	55,0	9,8	22,8	37,0	51,1	5,2	19. 51. 23,21				23,31			19. 52. 0,65			B.
	(d) H. C. 38334.	53,1	12,8	26,9	40,9	55,3	9,9		19. 56. 40,98				41,07			19. 57. 18,42			B.
	(d) H. C. 39116.	13,8		42,1	56,2	10,7	24,7	39,0	20. 13. 56,35				56,45			20. 14. 33,81			B.
	(d) α Aquarii.	49,3	2,9	16,0	29,6	43,1	56,8	10,1	21. 57. 29,69				29,85	37,34		21. 58. 7,29			B.
	(h) Victoria.	45,0	59,0	12,3	26,1	40,1	54,0	7,8	23. 34. 26,33				26,49			23. 35. 4,00			B.
	α Andromedæ.	18,1	33,2	48,5	4,0	19,5	34,7	50,0	0. 0. 4,00				4,08	37,58		0. 0. 41,61			B.
	β Ceti.	45,9	0,0	14,1	28,2	42,8	56,8	11,0	0. 35. 28,40				28,50	37,60		0. 36. 6,06			B.
	(i)(k) Polaris.	35,0	15,0		29,0	18,0	48,8	28,8	1. 5. 32,04				33,42			1. 6. 11,00			B.
Sept. 27	(i)(l) Polaris S.P.			49,2	33,7	18,6		31,0	13. 5. 34,07				32,34		1,00	13. 6. 11,61			B.
	Regulus.				43,0	56,9	10,3	24,1	9. 59. 42,87				43,02	40,14		10. 0. 23,17			B.
Sept. 28	β Aquarii.	20,8	34,1	47,7	1,1	15,0	28,1	41,9	21. 23. 1,24				1,37	40,54		21. 23. 41,99			B.
	Bessel xxi. 717. .	50,1	3,9	17,2	31,1	45,2	59,1	12,8	21. 29. 31,34				31,44			21. 30. 12,06			B.
	(m) *N.P.D. 102°. 45'. .	57,3	11,2	24,7	38,4	52,1	6,3	20,0	21. 32. 38,58				38,68			21. 33. 19,31			B.
	Bessel xxi. 1023. .		58,1	11,4	25,6	39,1	53,1		21. 42. 25,46				25,56			21. 43. 6,19			B.
	B.A.C. 7620.		29,0	42,4	56,1	10,1	23,7		21. 44. 56,26				56,36			21. 45. 37,00			B.
	Bessel xxi. 1173. .	38,7	52,4	6,0	19,9	33,9	47,1	1,0	21. 49. 19,86				19,96			21. 50. 0,60			B.
	(n) Bessel xxi. 1246. .	50,1	4,0	17,7	31,4	45,4	58,8	12,8	21. 52. 31,45				31,55			21. 53. 12,19			B.
	α Aquarii.	46,1	59,1	12,7	26,4	40,1	53,2	6,8	21. 57. 26,34				26,50	40,67		21. 58. 7,14			B.
	B.A.C. 7709.	22,1	36,0	50,0	3,8	18,1	31,6	45,2	22. 0. 3,83				3,92			22. 0. 44,57			B.
	Bessel xxii. 388. .	48,2	2,1	16,0	30,0	44,1	57,6	11,2	22. 17. 29,88				29,97			22. 18. 10,63			B.
	(o) Bessel xxii. 459. .	24,1	38,1	51,8	5,1	19,1	33,1	46,9	22. 21. 5,46				5,56			22. 21. 46,22			B.
	Neptune.	36,1	49,9	3,5	17,1	31,0	44,7	58,1	22. 27. 17,20				17,30			22. 27. 57,96			B.
	α Pegasi.	57,9	11,7	25,4	39,2	53,2	7,1	21,1	22. 56. 39,38				39,52	40,78		22. 57. 20,20			B.
	(k) Victoria.	30,1	43,8	57,3	11,2	25,2	38,8	52,7	23. 32. 11,30				11,46			23. 32. 52,17			B.
	α Andromedæ.	15,1	30,3	45,3	1,0	16,2	31,6	46,7	0. 0. 0,88				0,96	40,71		0. 0. 41,69			B.
	Flora.	17,2	30,9	44,4	58,0	12,1	25,5	39,2	0. 17. 58,19				58,29			0. 18. 39,03			B.
	β Ceti.	42,6	56,8	10,9	25,1	39,7	53,8	8,0	0. 35. 25,27				25,37	40,76		0. 36. 6,12			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40°, 344, - 26°, 892, - 13°, 573, - 0°, 060, + 13°, 618, + 26°, 913, + 40°, 337.

(a) The last five wires have been increased 10". (b) 'Confused and unsatisfactory.' (c) Too quickly after the Moon: these wires were considered good. (d) Cloudy. (e) Temp. 52°. 3. (f) Mist. (g) Extremely faint, especially the latter. Thick fog towards the horizon. (h) 'Good; very bright.' (i) Clouds. (k) Satisfactory observation. (l) Great unsteadiness at wire VII. (m) The star observed Aug. 23. (n) 'One of greater N.P.D. precedes.' (o) 'The preceding of two stars 5° apart of nearly the same Mag. and N.P.D.' The following star is Bessel xxi. 463.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.				
		I	II	III	IV	V	V	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.					
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"					
Sept. 30	(a) ☉ 1 L.	4,1	17,3	31,0	44,7	....	11,7	25,2	12.23.44,61	-1,1	+0,9	-1,9	44,77		1,03	12.24.26,55	B.					
	☉ 2 L.	12,9	26,1	39,6	53,1	7,0	20,4	34,0	12.25.53,30				53,46			12.26.35,24		B.					
	(a) Polaris SP. ....	....	13,5	....	....	13,5	47,5	....	13.5.30,94				28,95			13.6.10,76			B.
Oct. 1	γ Aquilæ	45,1	58,8	12,2	25,9	40,0	53,3	7,1	19.38.26,06				26,23	43,26		19.39.9,35	B.						
	α Aquilæ	5,4	19,2	32,7	46,2	0,1	13,6	27,1	19.42.46,33				46,51	43,14		19.43.29,64		B.					
	β Aquilæ	34,8	48,0	1,6	15,0	29,0	42,2	55,9	19.47.15,21				15,39	43,16		19.47.58,52			B.				
	H. C. 38740	38,1	52,3	6,8	21,0	35,6	49,8	4,0	20.5.21,08				21,18			20.6.4,32		B.					
	(b) α ^s Capricorni ....	....	35,1	48,7	2,6	16,4	30,0	....	20.9.2,56				2,66	43,14		20.9.45,80			B.		
	β Aquarii	18,1	31,7	45,0	58,8	12,3	25,4	39,1	21.22.58,63				58,77	43,10		21.23.41,97		B.					
	Neptune.	18,7	32,1	45,9	59,5	13,3	26,9	40,7	22.26.59,59				59,70			22.27.42,94			B.				
	Victoria	25,3	39,1	52,7	6,3	20,1	34,0	47,6	23.30.6,44				6,61			23.30.49,90		B.					
	α Andromedæ ...	12,6	27,9	43,0	58,2	13,8	28,9	44,1	23.59.58,36				58,45	43,22		0.0.41,76			B.				
	(c) Flora	38,1	51,8	5,4	19,1	33,1	46,7	0,1	0.15.19,19				19,30			0.16.2,62		B.					
	Oct. 2	β Aquarii.	17,0	30,2	44,0	57,2	11,1	24,3	38,0				21.22.57,40							57,54	44,32	1,14	23.30.11,59	B.
		(d) Victoria	45,8	59,3	13,1	26,8	40,9	54,9	8,5				23.29.27,04					27,21			B.		
(e) α Andromedæ ...		11,3	26,8	41,8	57,1	12,8	27,7	43,1	23.59.57,23	57,32	44,35		B.										
Oct. 5	☉ 1 L.	7,8	21,3	34,8	48,2	1,9	15,4	29,0	12.41.48,35	+1,9	-0,9			48,58		1,31	12.42.36,41	B.					
	☉ 2 L.	17,0	30,1	44,0	57,2	11,1	24,5	38,0	12.43.57,42				57,65				12.44.45,49		B.				
	γ Aquilæ.	40,1	53,7	6,8	20,9	34,8	48,3	1,9	19.38.20,93				21,20	48,21			19.39.9,41			B.			
	α Aquilæ	0,1	13,8	27,4	41,1	54,7	8,1	22,0	19.42.41,03				41,30	48,28			19.43.29,52		B.				
	B.A.C. 7639	1,2	15,5	29,7	44,0	58,2	12,1	26,4	21.47.43,87				44,06				21.48.32,39			B.			
	(f) Bessel xxi. 1227. ....	....	11,0	24,7	39,0	53,0	6,2	20,3	21.51.38,78				38,97				21.52.27,30		B.			
	(g) α Aquarii.	18,1	32,1	45,3	59,0	21.57.18,43				18,69	48,42			21.58.7,03			B.			
	Bessel xxii. 91.	33,9	47,7	1,2	15,1	29,3	43,0	57,0	22.4.15,31				15,50				22.5.3,84		B.				
	(f) Bessel xxii. 164.	53,0	6,4	20,8	34,7	48,7	2,6	16,2	22.7.34,63				34,82				22.8.23,17			B.			
	Bessel xxii. 252.	11,8	25,2	38,8	52,2	6,0	19,2	33,0	22.11.52,31				52,54				22.12.40,90		B.				
	Neptune	54,0	8,0	21,3	35,0	49,0	2,7	16,2	22.26.35,17				35,37				22.27.23,73			B.			
	(f) Bessel xxii. 672.	7,0	20,8	....	48,1	2,0	....	29,1	22.30.48,11				48,31				22.31.36,68		B.		
	Bessel xxii. 756.	46,0	59,9	13,0	26,7	40,2	53,8	7,0	22.34.26,66				26,91				22.35.15,28			B.			
	(h) Bessel xxii. 797.	1,9	15,9	29,8	43,2	57,5	11,2	25,0	22.36.43,50				43,69				22.37.32,07		B.				
	(i) H. C. 44661	59,0	13,0	26,8	40,9	55,0	8,7	22,3	22.41.40,81				41,00				22.42.29,38			B.			
	Bessel xxii. 961.	20,9	34,1	47,8	1,0	15,0	28,1	41,8	22.45.1,24				1,49				22.45.49,87		B.				
	H. C. 44904	13,9	27,1	40,7	54,0	7,5	20,9	34,2	22.49.54,04				54,29				22.50.42,67			B.			
	Bessel xxii. 1136	31,1	45,0	58,1	11,9	25,7	39,0	52,7	22.53.11,93				12,15				22.54.0,54		B.				
	(k) Victoria	55,1	8,9	36,0	3,6	17,1	23.27.36,15				36,42				23.28.24,84			B.			
	α Andromedæ ...	7,2	22,3	37,7	53,1	8,7	23,7	39,0	23.59.53,10				53,29	48,39			0.0.41,74		B.				
	Flora	9,1	22,8	36,1	50,0	4,0	17,3	31,1	0.11.50,05				50,24				0.12.38,70			B.			
β Ceti.	35,0	49,2	3,2	17,3	32,0	46,0	0,1	0.35.17,55	17,74	48,42	0.36.6,22	B.											
Oct. 7	(m)(n)(l) ☉ 1 L.	23,1	36,8	50,3	....	....	31,1	44,9	12.49.3,97					4,20	1,23	12.49.54,65	B.				
	☉ 2 L.	32,8	46,1	59,8	13,2	27,1	40,3	54,0	12.51.13,33			13,56				12.52.4,01		B.					
	(m) Polaris SP.	26,8	9,0	....	....	....	....	21,8	13.5.24,89			22,54				13.6.13,00			B.
	Arcturus	15,6	29,9	44,0	58,3	13,0	27,1	41,5	14.7.58,49			58,72		50,50		14.8.49,23		B.					
	(m) α ^s Capricorni ....	....	....	....	54,3	8,7	22,1	36,0	20.8.54,55			54,74		50,97		20.9.45,56			B.	
	(n) α Aquarii.	35,7	49,0	2,3	16,0	29,4	42,8	56,1	21.57.15,90			16,16		50,93		21.58.7,07		B.					
	Bessel xxii. 164.	50,2	4,1	18,0	32,0	45,9	0,2	13,8	22.7.32,03			32,22				22.8.23,14			B.				
	(m)(f) Neptune. ....	....	....	....	....	38,7	51,0	5,0	22.26.24,15			24,35				22.27.15,29		B.	
	(m)(f) Bessel xxii. 694	57,1	11,2	....	38,3	51,7	5,2	....	22.31.58,10			38,32				22.32.29,27			B.		
	(o) α Pegasi	47,4	1,2	15,0	29,0	43,1	56,9	10,9	22.56.29,08			29,33		50,93		22.57.20,30		B.					
	(p) Victoria	49,0	2,4	16,0	29,7	43,7	57,1	10,8	23.26.29,82			30,09				23.27.21,08			B.				
	Bessel xxiii. 1143	37,0	50,1	3,7	17,1	30,8	44,0	57,2	23.54.17,13			17,40				23.55.8,42		B.					
	33 Piscium.	10,2	24,0	37,2	51,1	4,9	18,1	31,7	23.56.51,03			51,25				23.57.42,27			B.				
	(o) α Andromedæ ...	5,0	20,1	35,2	50,8	6,0	21,0	36,2	23.59.50,61			50,80		50,88		0.0.41,82		B.					
	Flora	28,4	42,0	55,9	9,5	23,8	37,1	51,0	0.10.9,68			9,87				0.11.0,90			B.				
β Ceti.	32,2	46,7	0,8	14,9	29,2	43,3	57,5	0.35.14,94	15,13	51,04	0.36.6,18	B.											
Polaris	22,8	3,0	37,0	18,0	....	....	....	1.5.19,79	21,98		1.6.13,06		B.							

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40^s.344, -26^s.892, -13^s.573, -0^s.060, +13^s.618, +26^s.913, +40^s.337.

(a) Clouds passing. (b) Clouds. (c) 'Very good: the Planet very bright.' (d) Faint at times. The sky this evening was generally overcast. (e) Faint from cloud. (f) Faint. (g) The counting was 8^s slow: correction applied. (h) The counting was 8^s fast: correction applied. (i) Observed for Bessel xxii. 887. (k) Another object preceding 10^s was also observed. (l) Wire I taken hurriedly, being too close after wire II of Polaris. (m) Cloudy. (n) High wind: clock nearly inaudible. (o) Very boisterous wind. (p) 'Good.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adapted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Oct. 7	(a) β Leonis.	50,9	4,8	18,6	32,3	46,9	0,8	14,3	11.40.32,66	-1,1	+1,9	-0,9	32,91	51,63	1,30	11.41.24,47			B.
Oct. 8	(b)(c) Victoria.	31,9	45,7	59,9	11,3	....	....	....	23.25.59,52				59,79			23.26.51,99			B.
	α Andromedæ.	3,5	18,8	34,0	49,3	4,9	20,0	35,0	23.59.49,36				49,55	52,13		0.0.41,78			B.
	(b)(d) Flora. ....	....	....	....	....	....	47,3	2,2	0.9.20,42				20,61			0.10.12,85			B.
	β Ceti.	31,2	45,2	59,3	13,8	28,2	42,0	56,1	0.35.13,68				13,87	52,31		0.36.6,13			B.
Oct. 9	(e) \odot 2 L.	50,1	3,9	17,2	31,0	44,8	58,0	11,7	12.58.30,95						1,37	12.59.24,19			B.
	Arcturus.	13,0	27,3	41,4	56,1	10,2	24,3	39,0	14.7.55,90				56,13	53,08					B.
	β Leonis.	48,1	2,1	16,0	30,0	44,2	58,0	12,0	11.40.30,05				30,30	54,27	1,35				B.
Oct. 10	(b)(f) \odot 1 L.	20,1	33,8	47,0	0,7	14,6	28,0	41,7	13.0.0,84				1,06			13.0.55,40			B.
	\odot 2 L.	29,5	43,1	56,7	10,1	24,1	37,4	51,0	13.2.10,27				10,49			13.3.4,83			B.
Oct. 11	(b) \odot 1 L.	59,7	13,0	26,4	....	....	....	....	13.3.40,24		+1,5	-0,4	40,47		1,46	13.4.36,17			B.
	\odot 2 L.	8,8	22,9	....	50,0	3,9	....	30,9	13.5.50,00				50,23			13.6.45,94			B.
	(b) Arcturus.	10,1	24,6	....	53,0	....	....	36,1	14.7.53,12				53,35	55,86		14.8.49,12			B.
	γ 1 L.	5,9	20,6	35,2	50,0	5,1	20,0	34,8	18.8.50,23				50,45			18.9.46,46			B.
	α^2 Capricorni. ....	....	21,9	35,2	49,1	3,1	17,0	....	20.8.49,26				49,47	56,17		20.9.45,00			B.
	α Aquarii.	30,1	43,7	57,1	10,7	24,1	37,5	51,0	21.57.10,60				10,88	56,16		21.58.7,13			B.
	Neptune.	20,1	33,9	47,6	1,2	15,1	28,9	42,0	22.26.1,25				1,47			22.26.57,74			B.
	(g) Victoria.	55,1	8,8	23,0	36,4	50,2	3,8	17,4	23.24.36,39				36,66			23.25.32,99			B.
	α Andromedæ.	59,3	14,7	29,8	45,2	0,7	15,7	31,1	23.59.45,21				45,39	56,28		0.0.41,76			B.
	Flora.	19,1	32,8	46,2	0,2	14,0	27,8	41,7	0.7.0,25				0,46			0.7.56,84			B.
	(b)(f) β Ceti.	27,0	41,1	55,2	9,3	23,9	....	52,0	0.35.9,49				9,71	56,47		0.36.6,11			B.
Oct. 12	(h) \odot 1 L.	38,9	52,3	6,1	19,4	33,3	46,9	0,4	13.7.19,62				19,85		1,51	13.8.17,07			B.
	\odot 2 L.	49,0	2,4	16,0	29,7	43,4	57,0	10,6	13.9.29,73				29,96			13.10.27,18			B.
	β Aquilæ.	20,0	33,3	46,9	0,2	14,0	27,5	41,0	19.47.0,41				0,70	57,66		19.47.58,33			B.
	H. C. 38740.	23,1	37,2	51,7	6,0	21,0	34,9	49,0	20.5.6,13				6,35			20.6.4,00			B.
	α^2 Capricorni.	6,3	20,1	34,0	47,9	2,0	15,3	29,0	20.8.47,80				48,01	57,61		20.9.45,67			B.
	H. C. 39116.	53,1	7,2	21,6	35,8	50,0	4,1	18,2	20.13.35,72				35,94			20.14.33,60			B.
	B.A.C. 7040. ....	....	25,0	39,8	54,3	9,3	24,0	....	20.18.54,48				54,71			20.19.52,37			B.
	(f) H. C. 39518.	47,0	1,2	....	28,8	43,1	55,7	10,4	20.23.28,70				28,91			20.24.26,58			B.
	(b)(i) Neptune.	14,7	....	41,8	56,1	11,0	....	36,0	22.25.55,92				56,14			22.26.53,94			B.
	α Pegasi.	40,6	54,1	8,0	22,1	36,2	50,0	3,9	22.56.22,13				22,38	57,84		22.57.20,21			B.
	(b)(i) Victoria.	32,0	....	....	13,3	26,7	39,9	53,5	23.24.12,89				13,16			23.25.11,02			B.
	α Andromedæ.	58,0	13,1	28,1	43,7	59,1	14,1	29,7	23.59.43,68				43,86	57,81		0.0.41,76			B.
	(b) Flora. ....	....	....	3,8	....	29,8	42,9	56,8	0.6.16,12				16,33			0.7.14,24			B.
	β Ceti.	25,3	39,7	53,7	7,9	22,3	36,3	50,8	0.35.8,00				8,22	57,96		0.36.6,16			B.
	Bessel o. 678.	29,1	41,7	55,1	8,6	22,0	35,8	48,9	0.38.8,75				9,03			0.39.6,97			B.
	Bessel o. 751.	40,1	53,1	6,2	19,8	33,3	....	0,1	0.42.19,93				20,21			0.43.18,15			B.
	(k) * N.P.D. 91° 17'.	49,8	3,0	15,9	29,2	44,0	57,2	10,0	0.47.29,88				30,15			0.48.28,10			B.
	B.A.C. 274. ....	....	41,2	54,2	7,9	21,8	35,0	....	0.51.8,02				8,31			0.52.6,26			B.
	Bessel o. 996.	0,6	14,0	27,3	41,0	54,3	7,9	21,3	0.55.40,91				41,19			0.56.39,15			B.
	Bessel o. 1074.	47,1	0,2	12,9	27,2	41,2	53,9	8,0	0.59.27,22				27,50			1.0.25,46			B.
	Bessel i. 46.	17,1	....	44,0	57,7	11,4	25,0	38,1	1.2.57,70				57,98			1.3.55,95			B.
Oct. 14	(b)(c) Polaris SP. ....	....	57,0	....	....	47,0	27,0	10,5	13.5.10,42				9,68		1,59	13.6.11,30			B.
Oct. 15	\odot 1 L.	42,3	56,0	9,5	23,1	37,0	50,5	4,1	13.18.23,21				23,44			13.19.25,08			B.
	\odot 2 L. ....	....	6,1	19,8	33,7	47,2	1,0	14,2	13.20.33,51				33,74			13.21.35,38			B.
	(l) Arcturus. ....	....	....	32,9	47,1	1,8	15,9	30,0	14.7.47,23				47,46	61,74		14.8.49,16			B.
	(b) α Capricorni. ....	....	....	38,8	53,1	7,3	21,2	35,2	21.12.53,03				53,24			21.13.55,40			B.
	(b) β Aquarii.	58,8	12,1	25,7	39,1	53,0	6,3	20,0	21.22.39,29				39,54	62,15		21.23.41,71			B.
	γ 1 L.	30,2	44,7	58,9	13,3	28,0	42,1	56,1	21.35.13,33				13,54			21.36.15,73			B.
	(m) α Aquarii. ....	....	52,1	5,8	19,9	33,9	47,8	1,6	21.57.19,90				20,13			21.58.22,35			B.
	(n) θ Aquarii.	14,0	27,8	41,1	55,0	8,6	22,0	35,9	22.7.54,91				55,14			22.8.57,37			B.
	Neptune.	58,3	12,1	25,8	39,8	53,3	7,0	20,8	22.25.39,59				39,81			22.26.42,06			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

(a) Clouds passing. (b) Cloudy. (c) 'These wires good.' (d) Not observable at the other wires. (e) 1 L. hid by cloud. (f) Faint.
 (g) 'Good. A brighter object of greater N.P.D. followed 20°.' (h) Tremor. (i) Extremely faint. (k) Very irregular intervals. This object
 was observed for Bessel o. 842, the R.A. of which in Weiss's Catalogue is 1^m in defect. See Oct. 26. (l) Flaring. (m) Very faint at times. (n) The
 times set down were 1^s less.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Oct. 15	α Pegasi.....	36,0	49,7	3,3	17,7	31,8	45,5	59,2	22.56.17,60	-1,1	+1,5	-0,4	17,85	62,34	1,59	22.57.20,13			B.
	(a)(b) Victoria.....	....	42,0	....	....	....	....	....	23.23.9,19				9,47			23.24.11,78			B.
	(a) α Andromedæ...	53,1	8,7	23,9	38,9	54,8	9,9	25,1	23.59.39,20				39,38	62,29		0.0.41,73			B.
	Polaris.....	11,0	50,7	26,5	7,5	....	....	27,5	1.5.9,08				9,68			1.6.12,10			B.
	(c) Polaris SP.....	13,0	52,5	....	12,0	53,5	....	7,5	13.5.10,17				9,43		1,53	13.6.12,69			B.
Oct. 16	\odot 1 L.....	24,1	38,0	51,2	5,1	19,0	32,6	46,1	13.22.5,16				5,38			13.23.8,66			B.
	\odot 2 L.....	34,8	48,1	2,0	15,7	29,4	43,0	56,7	13.24.15,67				15,89			13.25.19,17			B.
	Arcturus.....	2,7	17,0	31,1	45,3	0,2	14,2	28,7	14.7.45,60				45,83	63,37		14.8.49,16			R.
	α^2 Capricorni....	0,1	14,1	27,7	41,6	55,7	9,1	23,1	20.8.41,63				41,84	63,71		20.9.45,55			B.
	B.A.C. 7113.....	25,4	40,1	55,0	9,9	25,0	39,3	54,1	20.28.9,83				10,06			20.29.13,79			B.
	B.A.C. 7263.....	32,5	46,3	0,1	14,5	28,9	42,7	56,3	20.48.14,47				14,68			20.49.18,44			B.
	H. C. 40616.....	47,1	1,8	16,2	31,0	45,9	0,2	14,2	20.51.30,91				31,13			20.52.34,89			B.
	Bessel xx. 1419..	39,1	53,2	6,8	20,9	34,9	48,3	2,1	20.54.20,75				20,96			20.55.24,73			B.
	H. C. 40866.....	....	21,8	35,7	49,8	4,1	17,8	32,0	20.57.49,86				50,07			20.58.53,84			B.
	H. C. 40994.....	4,0	18,0	32,0	46,1	0,1	14,0	28,0	21.0.46,03				46,24			21.1.50,01			B.
	(d) Bessel xxi. 142..	33,8	....	1,0	14,8	29,0	42,8	56,2	21.6.15,01				15,22			21.7.18,99			B.
	Bessel xxi. 378..	46,3	0,1	13,3	27,3	41,2	55,0	8,3	21.15.27,36				27,58			21.16.31,36			B.
	Bessel xxi. 441..	27,2	41,1	55,0	8,8	23,0	36,6	50,7	21.18.8,92				9,13			21.19.12,92			B.
	β Aquarii.....	....	10,6	23,9	37,9	51,4	4,7	18,2	21.22.37,69				37,93	63,75		21.23.41,72			B.
	Bessel xxi. 1053..	47,2	1,0	14,2	28,1	41,9	55,3	9,1	21.43.28,12				28,34			21.44.32,15			B.
	B.A.C. 7639.....	45,9	0,0	14,0	28,1	42,6	56,7	10,9	21.47.28,32				28,53			21.48.32,35			B.
	(e) Bessel xxi. 1240..	16,3	30,2	44,0	58,1	12,0	26,0	39,8	21.51.58,06				58,27			21.53.2,10			B.
	γ Aquarii.....	36,5	50,3	4,2	18,1	32,2	46,0	59,9	21.57.18,17				18,38			21.58.22,21			B.
	θ Aquarii.....	12,2	26,1	39,3	53,1	7,0	20,3	34,0	22.7.53,14				53,37			22.8.57,21			B.
	(f) δ 1 L.....	....	....	54,1	8,7	....	36,9	....	22.24.8,59				8,80			22.25.12,66			B.
Oct. 17	\odot 1 L.....	6,8	20,3	34,0	47,8	1,9	15,2	29,0	13.25.47,86				48,08		1,36	13.26.52,84			B.
	\odot 2 L.....	17,8	31,2	45,0	58,4	12,3	26,0	39,9	13.27.58,66				58,88			13.29.3,64			B.
	Bessel xx. 900....	25,0	39,1	52,8	6,7	21,0	34,7	48,8	20.34.6,87				7,08			20.35.12,25			B.
	(g) Bessel xx. 965....	....	17,2	31,0	45,1	59,2	12,8	....	20.36.45,06				45,27			20.37.50,44			B.
	Bessel xx. 1051..	1,1	14,8	28,9	42,2	56,8	10,6	25,0	20.39.42,77				42,98			20.40.48,15			B.
	λ Aquarii.....	3,3	17,0	30,3	44,0	58,0	11,2	25,0	22.53.44,11				44,34			22.44.49,63			B.
	(h) α Pegasi.....	....	....	....	14,6	....	....	56,2	22.56.14,62				14,87	65,31		23.6.35,73			B.
	(i) ϕ Aquarii.....	....	....	....	29,9	44,0	57,1	11,1	23.5.30,19				30,42			23.13.33,67			B.
	(i)(k) δ 1 L.....	46,4	0,1	14,1	28,1	42,1	56,0	10,0	23.12.28,12				28,35			23.23.43,93			B.
	(i) Victoria.....	58,2	....	24,5	....	52,1	....	18,5	23.22.38,32				38,60						B.
	(l) α Arietis.....	57,4	12,2	26,6	41,1	56,1	10,4	25,1	1.57.41,27				41,48	65,41					B.
Oct. 18	(m) \odot 2 L.....	....	14,8	28,1	42,1	56,1	9,2	....	13.31.42,06				42,28		1,37	13.32.48,34			B.
	(d) Neptune.....	....	57,2	....	25,2	....	52,2	5,8	22.25.24,85				25,07			22.26.31,64			B.
	(i) α Pegasi.....	31,8	45,7	59,3	13,2	27,3	41,0	....	22.56.13,32				13,57	66,60					B.
Oct. 19	(n) \odot 1 L.....	34,1	47,9	1,2	15,1	29,0	42,8	56,1	13.33.15,17		+1,6	-2,2	15,28		1,35	13.34.22,79			B.
	\odot 2 L.....	45,1	59,0	12,2	26,1	40,0	53,7	7,1	13.35.26,17				26,28			13.36.33,79			B.
	(i) α Andromedæ...	47,8	3,0	18,1	33,0	....	....	19,2	23.59.33,42				33,55	68,10					B.
Oct. 20	(o) Polaris SP.....	11,5	49,5	22,5	10,0	50,5	....	....	13.5.8,01				3,78		1,20	13.6.13,70			B.
Oct. 21	(a) \odot 1 L.....	....	....	....	....	59,1	12,8	26,2	13.40.45,20				45,31			13.41.55,26			B.
	α Aquilæ.....	38,2	51,7	5,1	19,1	32,6	46,2	59,6	19.43.18,93				19,13	10,17		19.43.29,39			B.
	α^2 Capricorni....	53,8	7,2	21,1	35,0	49,1	2,4	16,2	20.9.34,97				35,07	10,40		20.9.45,35			B.
	H. C. 39116.....	40,2	54,3	8,3	23,0	37,2	51,2	5,4	20.14.22,80				22,90			20.14.33,18			B.
	Bessel xx. 445....	4,3	18,3	32,0	46,1	0,2	14,0	27,9	20.17.46,12				46,22			20.17.56,50			B.
	(p) H. C. 39518.....	....	48,2	2,0	....	30,1	44,1	....	20.24.16,09				16,19			20.24.26,48			B.
	τ^2 Capricorni....	2,3	16,2	30,0	44,1	58,3	12,1	26,0	20.30.44,14				44,23			20.30.54,53			B.
	Bessel xx. 900....	20,1	33,9	47,7	1,8	15,8	29,9	43,6	20.35.1,83				1,92			20.35.12,22			B.
	(q) Neptune.....	....	....	57,1	10,9	25,0	38,3	52,1	22.26.11,60				11,11			22.26.21,50			B.
	(a) α Pegasi.....	28,0	41,9	55,6	9,4	23,7	37,2	51,2	22.57.9,58				9,76	10,38		22.57.20,18			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^{\circ}344$, $-26^{\circ}892$, $-13^{\circ}573$, $-0^{\circ}060$, $+13^{\circ}618$, $+26^{\circ}913$, $+40^{\circ}337$.

Oct. 21, between the observations of the Sun and α Aquilæ, Hardy was put forward 1^m.

(a) Cloudy. (b) Extremely faint. An object south preceding by about 6^s was also observed, it being doubtful which was the Planet. (c) Great tremor at wires IV and VII. (d) Very faint. (e) Thin clouds passing. (f) So much clouded as to be scarcely visible. (g) 'The following and somewhat brighter of two stars about 10^s apart.' (h) This observation is retained for clock-error, one-third the usual weight being given to it. (i) Very cloudy. (k) Faint at times. (l) The evening was generally cloudy: no other clock-stars could be taken. (m) Dense cloud over 1 L. (n) Faint from cloud. (o) Observed satisfactorily at these wires: clouded at wires VI and VII. (p) Wire IV, written down discordantly 15,3, has been rejected. (q) Clouds just cleared off. The counting was 17^s fast: correction applied accordingly.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		"	"	"					
Oct. 21	(a) α Andromedæ...	45,2	0,4	15,8	31,1	46,7	1,8	17,0	0. 0. 31,14	-1,1	+1,6	-2,2	31,27	10,37	1,20	0. 0. 41,74	B.
	(b) β Ceti .....	....	....	41,2	55,3	10,0	24,0	....	0. 35. 55,53				55,63	10,55		0. 36. 6,13	B.
	(b) Polaris	0,0	41,0	14,5	....	....	16,0	59,5	1. 5. 58,74				2,28			1. 6. 12,81	B.
	(c) ξ^2 Ceti.....	....	....	....	....	17,3	30,8	44,1	2. 20. 3,53				3,73			2. 20. 14,32	B.
	γ Ceti.....	12,1	25,6	39,0	52,3	6,2	19,7	33,0	2. 27. 52,55				52,75			2. 28. 3,34	B.
	(d) δ 2 L.....	38,7	52,7	6,4	20,4	34,8	48,7	2,2	2. 34. 20,55				20,74			2. 34. 31,34	B.
	α Ceti.....	38,2	51,7	5,1	18,6	32,2	45,7	59,1	2. 54. 18,66				18,85	10,64		2. 54. 29,46	B.
	σ Tauri.....	....	9,9	23,3	36,9	50,9	4,1	17,8	3. 16. 37,02				37,22			3. 16. 47,85	B.
	ξ Tauri.....	14,0	27,8	41,0	54,9	8,7	22,0	35,9	3. 18. 54,90				55,09			3. 19. 5,73	B.
	(b)(c)Polaris SP.....	....	....	....	6,0	49,5	....	....	13. 6. 4,97				1,10			13. 6. 12,23	B.
Oct. 26	\odot 1 L.....	0,6	14,3	28,0	42,0	56,0	9,9	23,4	14. 0. 42,03		+1,9		42,14		1,42	14. 0. 58,17	B.
	\odot 2 L.....	13,1	27,0	40,6	54,2	8,4	22,1	35,9	14. 2. 54,47				54,58			14. 3. 10,61	B.
	H. C. 40994.	51,1	5,1	19,0	33,0	47,3	1,1	15,2	21. 1. 33,11				33,22			21. 1. 49,66	B.
	(f) H. C. 41070.....	....	5,9	19,4	33,6	47,8	1,8	....	21. 3. 33,70				33,80			21. 3. 50,24	B.
	(g)(h)Bessel xxi. 142. .	21,1	34,7	48,1	2,2	16,0	29,8	43,0	21. 7. 2,13				2,24			21. 7. 18,69	B.
	Bessel xxi. 222. .	23,1	36,9	50,6	4,2	18,2	32,0	46,0	21. 10. 4,43				4,54			21. 10. 20,99	B.
	Bessel xxi. 295. .	17,1	30,9	44,5	58,4	12,2	26,1	40,0	21. 12. 58,48				58,59			21. 13. 15,05	B.
	H. C. 41544.....	36,1	50,1	4,0	17,5	31,7	45,2	59,1	21. 15. 17,67				17,78			21. 15. 34,24	B.
	(g) Bessel xxi. 416. .	....	24,0	37,1	51,2	5,1	18,5	....	21. 17. 51,18				51,29			21. 18. 7,75	B.
	Bessel xxi. 495. .	24,1	37,8	51,6	5,2	19,2	33,0	47,0	21. 21. 5,41				5,52			21. 21. 21,98	B.
	β Aquarii.....	44,2	57,8	11,0	25,0	38,8	52,0	5,7	21. 23. 24,93				25,08	16,39		21. 23. 41,54	B.
	Neptune.....	10,0	23,7	37,1	51,1	5,0	18,5	32,0	22. 25. 51,05				51,17			22. 26. 7,70	B.
	(i) * N.P.D. 83°. 7'. .	48,0	1,0	14,8	28,4	42,7	....	9,2	23. 22. 28,52				28,74			23. 22. 45,33	B.
	Victoria.....	....	....	....	....	....	15,2	28,0	23. 22. 47,76				47,97			23. 23. 4,56	B.
	(g) Bessel xxiii. 723. .	25,6	....	53,1	6,2	20,1	33,8	47,0	23. 35. 6,42				6,54			23. 35. 23,14	B.
	Bessel xxiii. 776. .	54,1	7,7	21,3	35,1	49,2	3,1	16,9	23. 37. 35,34				35,54			23. 37. 52,14	B.
	(k) * N.P.D. 76°. 14'. .	59,1	13,3	27,1	41,0	55,0	8,6	22,6	23. 46. 40,95				41,15			23. 46. 57,76	B.
	H. C. 47106.....	1,9	15,3	29,1	43,1	57,2	11,0	25,0	23. 53. 43,23				43,43			23. 54. 0,05	B.
	(l) Flora.....	2,0	15,7	29,0	42,9	57,0	10,3	24,1	23. 59. 43,00				43,12			23. 59. 59,74	B.
	Bessel o. 446.....	23,7	37,3	50,9	4,5	17,8	31,3	44,8	0. 26. 4,33				4,54			0. 26. 21,19	B.
	(g) Bessel o. 492.	49,2	3,0	16,1	29,3	43,1	56,6	10,2	0. 28. 29,65				29,84			0. 28. 46,49	B.
	Bessel o. 544.	9,7	23,0	36,1	49,9	3,7	16,8	30,1	0. 31. 49,90				50,11			0. 32. 6,76	B.
	β Ceti.....	6,9	21,1	35,0	49,2	3,9	17,8	32,0	0. 35. 49,42				49,53	16,64		0. 36. 6,19	B.
	Bessel o. 678.....	9,8	23,1	36,3	50,0	3,8	17,0	30,2	0. 38. 50,02				50,22			0. 39. 6,83	B.
	Bessel o. 735.....	28,0	41,1	54,7	8,2	22,0	35,5	49,1	0. 42. 8,37				8,58			0. 42. 25,24	B.
	Bessel o. 842.....	25,7	39,1	52,2	6,0	19,8	32,8	46,2	0. 49. 5,97				6,16			0. 49. 22,83	B.
	B.A.C. 274.....	8,8	22,4	35,8	49,2	3,0	16,5	30,0	0. 51. 49,39				49,61			0. 52. 6,28	B.
	B.A.C. 286.....	46,9	0,2	13,9	27,4	41,2	54,7	8,2	0. 54. 27,50				27,71			0. 54. 44,38	B.
	Bessel o. 1013.....	41,0	54,9	8,0	21,9	35,6	49,0	2,5	0. 57. 21,84				22,05			0. 57. 38,73	B.
	Bessel o. 1074....	28,2	42,1	55,2	9,0	22,6	36,1	49,3	1. 0. 8,93				9,14			1. 0. 25,32	B.
	Bessel i. 22.....	48,6	2,2	15,9	29,8	43,6	57,1	10,7	1. 2. 29,70				29,91			1. 2. 46,59	B.
	α Arietis.....	....	....	....	30,1	44,9	59,1	13,9	1. 58. 30,10				30,27	16,69		1. 58. 47,01	B.
	(a) α Ceti.....	32,1	45,4	58,8	12,4	26,1	39,4	52,9	2. 54. 12,44				12,65	16,90		2. 54. 29,44	B.
Oct. 28	(m) \odot 1 L.....	40,0	53,9	7,3	21,4	35,6	49,1	3,0	14. 8. 21,47				21,58		1,36	14. 8. 40,61	B.
	\odot 2 L.....	52,8	6,6	20,1	34,1	48,2	2,1	15,9	14. 10. 34,26				34,37			14. 10. 53,40	B.
	γ Aquilæ.....	....	....	35,9	49,2	3,1	16,2	30,2	19. 38. 49,26				49,47	19,54		19. 39. 8,81	B.
	α Aquilæ.....	28,8	42,2	55,6	9,4	23,0	36,9	50,1	19. 43. 9,43				9,64	19,54		19. 43. 28,99	B.
	β Aquilæ.....	58,0	11,2	24,8	38,3	52,0	5,2	19,0	19. 47. 38,36				38,58	19,51		19. 47. 57,93	B.
	(n) β Aquarii.....	41,8	55,1	8,5	22,0	36,0	49,0	2,8	21. 23. 22,17				22,33	19,17		21. 23. 41,77	B.
	Neptune.....	2,3	16,1	29,8	43,3	57,3	11,1	24,6	22. 25. 43,50				43,62			22. 26. 3,12	B.
	Bessel xxii. 723. .	7,8	21,2	34,9	48,8	2,7	16,1	29,9	22. 33. 48,77				48,89			22. 34. 8,40	B.
	Bessel xxii. 797. .	31,0	44,8	58,2	12,1	26,2	40,0	54,0	22. 37. 12,33				12,44			22. 37. 31,95	B.
	(g) H. C. 44601.....	....	26,1	40,0	53,2	7,1	20,3	....	22. 39. 53,34				53,52			22. 40. 13,04	B.
	(o) Bessel xxii. 902. .	51,1	....	17,8	32,1	46,0	....	12,2	22. 42. 31,84				31,97			22. 42. 51,49	B.
	Bessel xxii. 981. .	6,0	19,6	33,1	....	0,7	14,2	27,7	22. 46. 46,87				46,99			22. 47. 6,51	B.
	H. C. 44904.....	42,6	56,0	9,2	22,9	36,5	50,0	3,2	22. 50. 22,91				23,09			22. 50. 42,62	B.
	(p) Bessel xxii. 1136. .	0,0	13,3	26,9	40,7	54,1	....	....	22. 53. 40,57				40,71			22. 54. 0,24	B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

(a) Diffused. (b) Cloudy. (c) Corrected by -1". The observer was delayed at the Northumberland Dome. (d) Tremor. (e) These wires good. (f) Corrected by -21" for erroneous counting. (g) Faint. (h) Observed with difficulty. (i) Mistaken for Victoria. (k) Apparently the star observed Sept. 21: the noted times have been diminished 1". (l) 'Bright.' (m) Faint, but could be observed satisfactorily. (n) Faint from cloud. (o) Extremely faint. (p) Cloud.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Oct. 28	α Arietis.....	....	....	13,1	27,2	42,1	56,3	11,0	1.58.27,36	-1,1	+1,9	-2,2	27,53	19,45	1,36	1.58.47,23			B.
	β 2 L.....	43,0	57,2	11,7	26,1	40,6	54,8	9,1	9.30.26,07				26,27		1,33	9.30.46,35			B.
	Regulus.....	22,1	35,8	49,7	3,5	17,4	31,1	44,9	10.0.3,50				3,70	20,19		10.0.23,80			B.
	β Leonis.....	....	....	50,3	4,3	18,8	32,5	46,3	11.41.4,50				4,70	20,19		11.41.24,90			B.
Oct. 29	(a) \odot 1 L.....	30,8	44,6	58,1	12,2	26,1	40,0	53,9	14.12.12,24				12,35			14.12.32,69			B.
	\odot 2 L.....	43,9	57,8	11,3	25,1	39,5	53,1	7,0	14.14.25,39				25,50			14.14.45,84			B.
	β Aquarii.....	40,0	53,7	7,0	20,5	34,2	47,8	1,1	21.23.20,61				20,77	20,71		21.23.41,51			B.
	Neptune.....	59,1	12,3	26,0	39,9	53,7	7,1	21,0	22.25.39,88				40,00			22.26.0,80			B.
	(b) Victoria.....	22,0	36,1	49,4	2,2	16,8	30,0	44,3	23.23.2,97				3,18			23.23.24,03			B.
	Bessel xxiii. 1088	51,7	5,1	18,6	32,0	45,9	59,1	12,7	23.52.32,15				32,31			23.52.53,19			B.
	Bessel xxiii. 1163	....	44,2	57,8	11,2	25,1	38,4	51,4	23.56.11,26				11,42			23.56.32,30			B.
	Bessel xxiii. 1227	43,1	57,0	10,3	24,1	38,1	51,3	5,7	23.59.24,23				24,35			23.59.45,23			B.
	(c) Bessel o. 64. sf..	54,2	7,8	21,1	35,0	48,3	1,8	15,1	0.3.34,76				34,92			0.3.55,80			B.
	Bessel o. 110	49,0	2,2	15,2	29,1	43,1	56,1	9,7	0.6.29,20				29,41			0.6.50,30			B.
	Bessel o. 266	27,1	40,3	54,0	7,2	21,1	34,3	47,9	0.15.7,42				7,58			0.15.28,47			B.
	β Ceti.....	2,3	16,7	30,8	45,1	59,4	13,4	27,8	0.35.45,07				45,18	20,99		0.36.6,09			B.
	Bessel i. 284.....	20,9	34,2	48,0	1,2	15,1	28,6	41,8	1.17.1,40				1,60			1.17.22,55			B.
	(d) Bessel i. 376....	17,0	30,1	43,3	56,8	10,7	23,9	37,6	1.21.57,06				57,27			1.22.18,23			B.
	Bessel i. 454.....	19,2	33,0	46,1	0,0	13,6	27,0	40,3	1.25.59,88				0,09			1.26.21,05			B.
	π Piscium.....	10,0	23,5	37,1	50,9	5,1	18,3	32,1	1.28.51,00				51,20			1.29.12,16			B.
	Bessel i. 568.....	21,1	34,8	48,0	1,4	15,2	28,8	42,1	1.32.1,63				1,84			1.32.22,80			B.
	α Arietis.....	42,2	56,8	11,1	25,9	40,6	55,1	9,8	1.58.25,93				26,10	20,89		1.58.47,09			B.
Oct. 30	(e) Victoria.....	....	....	....	....	....	....	53,1	23.23.12,51			-0,6	12,81		1,41	23.23.35,02			B.
	(f) Bessel xxiii. 678	....	2,0	15,6	29,5	43,0	56,7	....	23.32.29,36				29,63			23.32.51,87			B.
	(g) Bessel xxiii. 748	29,0	....	55,7	8,2	22,3	35,6	49,1	23.36.8,84				9,12			23.36.31,37			B.
	(h) Bessel xxiii. 817	0,8	14,1	27,4	41,0	54,7	8,0	21,5	23.39.41,07				41,34			23.40.3,60			B.
	(i) Bessel xxiii. 869	27,6	40,3	53,8	7,2	21,1	34,3	47,8	23.42.7,45				7,73			23.42.29,99			B.
	(k) Bessel xxiii. 922	9,3	22,7	36,3	49,8	3,4	16,4	30,0	23.44.49,70				49,98			23.45.12,24			B.
	Bessel xxiii. 976	40,2	53,9	7,1	20,5	34,2	47,7	1,0	23.47.20,65				20,94			23.47.43,20			B.
	Bessel xxiii. 1088	50,2	3,8	17,1	30,8	44,3	57,8	11,1	23.52.30,73				30,98			23.52.53,24			B.
	Bessel xxiii. 1143	5,3	19,0	32,0	45,9	59,4	12,8	26,1	23.54.45,79				46,07			23.55.8,34			B.
	Bessel xxiii. 1227	41,5	55,3	9,0	23,1	37,0	50,6	4,1	23.59.22,94				23,15			23.59.45,42			B.
	Bessel o. 266	25,7	39,1	52,3	5,9	19,7	33,0	46,3	0.15.6,00				6,25			0.15.28,53			B.
	45 Piscium.....	57,8	11,0	24,9	38,2	52,0	5,3	19,1	0.17.38,33				38,62			0.18.0,91			B.
	Bessel o. 355	28,8	42,1	55,3	9,1	22,2	35,9	49,3	0.21.8,96				9,24			0.21.31,53			B.
	Bessel o. 402	14,8	28,0	41,4	55,1	8,4	22,1	35,2	0.23.55,00				55,29			0.24.17,58			B.
	Bessel o. 477	45,8	59,1	12,3	26,0	39,7	53,1	6,2	0.27.26,03				26,32			0.27.48,62			B.
	Bessel o. 511	19,1	32,1	45,7	58,8	12,1	26,1	39,9	0.29.59,12				59,41			0.30.21,71			B.
	Bessel o. 567	9,1	22,8	36,0	49,3	2,8	16,2	30,1	0.32.49,48				49,76			0.33.12,06			B.
	β Ceti.....	0,8	15,2	29,2	43,5	58,2	12,1	26,1	0.35.43,58				43,80	22,36		0.36.6,11			B.
	(l) α Arietis.....	40,7	55,1	9,8	24,1	39,1	53,8	8,1	1.58.24,38				24,61	22,38		1.58.47,10			B.
	α Ceti.....	26,5	40,1	53,1	6,9	20,7	33,9	47,1	2.54.6,90				7,19	22,40		2.54.29,63			B.
Oct. 31	α Aquilæ.....	24,4	38,2	51,3	5,3	19,2	32,7	46,1	19.43.5,31				5,60	23,53	1,42	19.43.28,96			B.
	β Aquilæ.....	53,8	7,1	20,7	34,2	48,0	1,2	14,8	19.47.34,26				34,55	23,49		19.47.57,91			B.
	α^2 Capricorni....	40,1	53,9	7,7	21,6	35,6	49,2	3,0	20.9.21,58				21,79	23,51		20.9.45,17			B.
	(m) Bessel xxi. 142..	13,3	27,1	40,8	55,1	8,8	22,7	36,1	21.6.54,84				55,05			21.7.18,49			B.
	Bessel xxi. 222..	16,0	29,9	43,3	57,1	11,2	25,0	38,8	21.9.57,33				57,54			21.10.20,98			B.
	(n) Bessel xxi. 295..	10,0	23,9	37,6	51,2	5,3	19,0	33,1	21.12.51,44				51,65			21.13.15,09			B.
	Bessel xxi. 416..	2,8	16,2	30,1	44,1	58,0	11,4	25,9	21.17.44,07				44,28			21.18.7,73			B.
	Bessel xxi. 495..	17,0	30,7	44,2	58,1	12,2	26,0	39,8	21.20.58,29				58,50			21.21.21,95			B.
	β Aquarii.....	37,1	50,8	4,1	17,8	31,5	45,0	58,3	21.23.17,80				18,04	23,41		21.23.41,50			B.
	Bessel xxi. 902..	5,1	19,4	33,1	47,1	1,2	14,9	29,0	21.36.47,12				47,33			21.37.10,80			B.
	(m) H. C. 42467....	50,8	5,2	19,0	32,8	46,2	0,0	....	21.39.32,51				32,73			21.39.56,20			B.
	Bessel xxi. 1053.	27,1	41,0	54,4	8,1	22,1	35,6	49,2	21.44.8,22				8,44			21.44.31,92			B.
	Bessel xxi. 1173.	55,1	8,8	22,3	36,1	50,1	3,9	17,6	21.49.36,27				36,48			21.49.59,96			B.
	α Pegasi.....	14,3	28,2	42,1	56,1	10,1	24,0	37,8	22.56.56,09				56,35	23,68		22.57.19,90			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

(a) Tremor and bad definition. (b) Difficult to observe, so faint. (c) 'The brighter.' (d) Faint. (e) Another object preceding about 16" was also observed, it being doubtful which was the Planet. (f) Excessively faint: the observation mere guess. (g) The evening rainy and misty, and the stars very faint and badly defined. (h) 'A fainter of greater N.P.D. followed.' (i) Indistinct: observed doubtfully. (j) 'Low in the field:' probably by a mistake in setting. (k) 'The *af.* star.' By Bessel the north star precedes. (l) Cloudy. (m) Faint from cloud. (n) 'The *af.* star.' By Bessel the north star precedes.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"				h.	m.	s.	
Oct. 31	(a)(b) Bessel xxii. 1292	14,0	27,8	41,0	55,1	9,3	22,7	36,3	23. 0. 55,17	-1,1	+1,9	-0,6	55,38		1,42	23. 1. 18,93			B.
	(c) Bessel xxiii. 60..	5,1	18,1	31,1	44,9	59,1	13,0	26,3	23. 3. 45,37				45,62			23. 4. 9,17			B.
Nov. 1	(a) β Aquarii.....	35,9	49,1	2,8	16,1	30,0	43,2	56,9	21. 23. 16,29		+2,4		16,56	24,88	1,45	21. 23. 41,50			B.
	(a)(d) Bessel xxii. 459	....	53,1	6,7	20,3	34,3	48,2	....	22. 21. 20,52				20,75			22. 21. 45,75			B.
	Neptune.....	48,3	2,1	15,8	29,3	43,1	57,0	10,5	22. 25. 29,45				29,68			22. 25. 54,69			B.
	α Pegasi.....	13,1	26,8	40,7	54,6	8,8	22,3	36,1	22. 56. 54,63				54,92	25,10		22. 57. 19,96			B.
	H. C. 45222.....	....	2,3	16,0	29,9	43,6	57,2	....	22. 59. 29,80				30,04			22. 59. 55,08			B.
	Bessel xxiii. 38..	6,5	20,1	33,3	46,8	0,3	14,0	27,1	23. 2. 46,87				47,17			23. 3. 12,21			B.
	Bessel xxiii. 303	58,1	11,3	24,5	38,2	52,0	5,2	18,3	23. 14. 38,23				38,52			23. 15. 3,57			B.
	(e) Bessel xxiii. 358	39,7	53,1	6,9	20,2	33,4	46,7	59,9	23. 17. 19,99				20,29			23. 17. 45,35			B.
	Bessel i. 928....	12,1	26,0	39,4	53,1	7,1	20,7	34,5	1. 51. 53,27				53,57			1. 52. 18,78			B.
	Bessel i. 981....	45,3	58,8	12,1	26,0	39,7	53,0	6,6	1. 54. 25,93				26,24			1. 54. 51,45			B.
	α Arietis.....	37,8	52,2	6,8	21,6	36,2	50,8	5,2	1. 58. 21,51				21,77	25,23		1. 58. 46,99			B.
	Bessel i. 1094....	....	11,8	24,3	38,1	52,0	5,1	....	2. 0. 38,26				38,58			2. 1. 3,80			B.
Nov. 2	β Aquarii.....	34,1	47,8	1,0	14,7	28,4	41,9	55,2	21. 23. 14,73				15,00	26,42	1,45	21. 23. 41,46			B.
	(f) Neptune.....	....	....	....	26,3	40,1	....	7,3	22. 25. 26,29				26,52			22. 25. 53,05			B.
	α Pegasi.....	11,7	25,4	39,1	53,2	7,2	21,0	34,9	22. 56. 53,21				53,50	26,51		22. 57. 20,06			B.
	H. C. 45303.....	34,1	48,2	1,4	15,2	29,0	42,7	56,2	23. 1. 15,26				15,50			23. 1. 42,06			B.
	Bessel xxiii. 60..	1,3	15,0	28,3	42,1	55,4	....	22,4	23. 3. 41,93				42,20			23. 4. 8,76			B.
	(g) Bessel xxiii. 158. <i>nf.</i>	....	59,2	13,1	27,0	40,3	53,7	....	23. 8. 26,66				26,96			23. 8. 53,53			B.
	Bessel xxiii. 261.	47,9	1,3	14,8	28,4	42,0	55,7	9,1	23. 12. 28,46				28,71			23. 12. 55,28			B.
	Bessel xxiii. 303.	56,4	10,1	23,4	37,0	50,9	4,0	17,3	23. 14. 37,02				37,31			23. 15. 3,88			B.
	Bessel xxiii. 358.	38,1	51,5	5,0	18,3	32,1	45,1	58,8	23. 17. 18,42				18,72			23. 17. 45,30			B.
	(h) Victoria.....	9,2	22,9	35,9	49,4	3,6	16,9	30,2	23. 23. 49,73				50,05			23. 24. 16,63			B.
	Flora.....	....	48,8	....	....	30,0	43,4	57,1	23. 58. 16,05				16,28			23. 58. 42,90			B.
	Bessel i. 830.....	57,1	11,0	24,2	38,0	51,8	5,2	19,0	1. 45. 38,05				38,36			1. 46. 5,09			B.
	α Arietis.....	36,1	50,7	5,1	20,0	35,0	49,2	3,8	1. 58. 19,98				20,24	26,77		1. 58. 46,98			B.
	α Ceti.....	22,0	35,6	49,0	2,3	16,1	29,4	42,9	2. 54. 2,47				2,78	26,84		2. 54. 29,57			B.
	η Tauri.....	2,0	16,6	31,1	45,9	0,5	15,0	29,5	3. 27. 45,80				46,06			3. 28. 12,89			B.
	Bessel iii. 569....	51,4	5,1	19,0	33,0	47,0	0,8	14,2	3. 30. 32,93				33,23			3. 31. 0,06			B.
Nov. 4	H. C. 41544.....	23,3	37,2	51,0	4,8	....	32,1	46,1	21. 15. 4,75				4,98		1,40	21. 15. 34,11			B.
	Bessel xxi. 416..	56,0	10,4	24,3	38,2	52,2	6,1	20,1	21. 17. 38,19				38,41			21. 18. 7,54			B.
	β Aquarii.....	31,6	45,2	58,1	12,1	25,8	39,1	52,7	21. 23. 12,08				12,35	29,05		21. 23. 41,48			B.
	Bessel xxii. 119.	21,1	34,2	47,4	1,3	15,2	28,4	42,0	22. 6. 1,37				1,64			22. 6. 30,82			B.
	Bessel xxii. 183.	55,9	9,6	23,3	37,3	51,5	5,3	19,2	22. 8. 37,44				37,66			22. 9. 6,84			B.
	(i) Bessel xxii. 252.	30,7	45,0	58,1	11,2	24,6	37,8	51,7	22. 12. 11,30				11,57			22. 12. 40,76			B.
	(k) Bessel xxii. 343.	....	36,9	50,6	4,3	18,7	32,1	....	22. 16. 4,52				4,74			22. 16. 33,93			B.
	Bessel xxii. 415.	20,0	33,9	47,4	1,1	15,3	29,0	42,9	22. 19. 1,37				1,60			22. 19. 30,79			B.
	Bessel xxii. 459.	35,1	48,8	2,8	16,2	30,4	44,1	57,7	22. 21. 16,44				16,67			22. 21. 45,87			B.
	Neptune.....	40,0	53,3	6,7	20,4	34,3	48,0	1,5	22. 25. 20,60				20,83			22. 25. 50,03			B.
	H. C. 44601.....	3,1	16,2	50,0	43,1	57,2	10,2	24,0	22. 39. 43,40				43,68			22. 40. 12,89			B.
	(l) Bessel xxii. 902.	40,9	54,3	8,3	21,7	35,4	48,6	2,9	22. 42. 21,73				21,98			22. 42. 51,20			B.
	Bessel xxii. 961.	39,6	53,1	6,5	20,1	34,1	47,1	0,7	22. 45. 20,17				20,45			22. 45. 49,67			B.
	Bessel xxii. 1007	4,1	18,1	31,4	45,1	59,2	12,9	27,0	22. 47. 45,40				45,63			22. 48. 14,85			B.
	Bessel xxii. 1068	2,1	16,0	29,2	43,0	57,0	10,1	23,8	22. 50. 43,03				43,27			22. 51. 12,49			B.
	Bessel xxii. 1156	32,2	46,0	59,6	13,4	27,3	41,1	54,8	22. 54. 13,48				13,71			22. 54. 42,94			B.
	Bessel xxii. 1205	....	46,8	0,1	13,8	27,6	41,0	....	22. 56. 13,86				14,11			22. 56. 43,34			B.
	Victoria.....	43,1	57,0	11,3	24,3	37,4	50,4	4,2	23. 24. 23,96				24,28			23. 24. 53,53			B.
	H. C. 46253.....	54,6	8,0	21,3	35,1	48,8	2,1	15,3	23. 28. 35,03				35,31			23. 29. 4,57			B.
	Bessel xxiii. 678	41,2	55,0	8,3	21,9	35,7	48,9	2,1	23. 32. 21,87				22,16			23. 32. 51,42			B.
	Bessel xxiii. 768	16,2	29,9	43,1	56,3	10,0	23,8	37,0	23. 36. 56,62				56,92			23. 37. 26,19			B.
	Bessel xxiii. 830	23,7	36,9	50,2	4,0	17,7	30,8	44,2	23. 40. 3,93				4,22			23. 40. 33,49			B.
	(m) Bessel xxiii. 897	0,4	14,1	27,4	41,1	55,0	8,2	22,1	23. 43. 41,18				41,43			23. 44. 10,70			B.
	Bessel xxiii. 956	31,1	44,3	57,9	11,2	25,1	38,3	52,0	23. 46. 11,41				11,72			23. 46. 41,00			B.
	H. C. 46918.....	....	52,0	5,0	18,6	32,2	45,7	....	23. 48. 18,70				19,00			23. 48. 48,28			B.
	H. C. 47030.....	45,1	58,5	11,9	25,3	39,1	52,4	6,0	23. 51. 25,47				25,76			23. 51. 55,04			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',344, -26',892, -13',573, -0',060, +13',618, +26',913, +40',337.

(a) 'flood. (b) 'A very faint star of greater N.P.D. followed. (c) 'Bad: mere guess. (d) Clouds just clearing off, and the stars unsteady.
(e) Diffused. (f) Dense cloud passing. (g) 'The brighter. (h) 'Bright. (i) Disturbance at Wire 11. (k) 'A fainter of greater N.P.D. preceded.
(l) Very faint: difficult to observe. (m) 'The following of two.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Nov. 4	Flora.....	29,0	42,8	56,1	10,1	24,0	37,7	51,2	23.58.10,12	-1,1	+2,4	-0,6	10,35		1,40	23.58.39,64			B.
	(a) β Ceti.....	....	8,1	22,2	36,5	51,0	4,9	19,1	0.35.36,53				36,76	29,38		0.36.6,08			B.
	Polaris.....	38,5	20,8	54,6	36,0	....	58,0	....	1.5.38,58				41,35			1.6.10,70			B.
	α Arietis.....	33,9	48,2	2,8	17,3	32,2	46,4	1,1	1.58.17,42				17,68	29,33		1.58.47,08			B.
	Bessel II. 905 ...	36,3	49,9	3,8	17,1	31,1	44,7	58,1	2.51.17,29				17,60			2.51.47,06			B.
	α Ceti.....	19,2	32,8	46,1	59,8	13,4	26,9	40,1	2.53.59,76				0,07	29,57		2.54.29,53			B.
	Bessel III. 1082...	40,1	54,0	7,4	21,0	35,2	49,2	2,6	3.0.21,35				21,64			3.0.51,11			B.
	Bessel III. 43....	26,1	39,7	53,1	7,0	21,0	34,2	48,2	3.3.7,04				7,35			3.3.36,82			B.
	(b) H. C. 6032.....	3,1	17,9	32,1	46,9	1,8	16,0	30,8	3.7.46,95				47,21			3.8.16,68			B.
	H. C. 6142.....	39,4	53,8	7,8	22,1	36,7	50,8	5,0	3.11.22,23				22,50			3.11.51,98			B.
	H. C. 6247.....	17,9	31,9	45,6	59,6	13,9	27,8	42,0	3.14.59,82				0,10			3.15.29,58			B.
	(c) Polaris SP.....	....	....	....	45,5	....	....	....	13.5.43,21				40,35		1,37				B.
Nov. 5	Neptune.....	....	....	4,0	17,6	31,3	45,0	58,7	22.25.17,64				17,87			22.25.48,50			B.
	α Pegasi.....	7,1	21,0	35,0	49,0	3,2	16,9	30,9	22.56.49,02				49,31	30,66					B.
	(d) Victoria.....	1,7	15,6	29,3	43,1	57,1	10,1	23,6	23.24.42,93				43,25			23.25.13,94			B.
	H. C. 46253....	53,1	6,7	20,0	33,3	47,0	0,5	14,0	23.28.33,51				33,79			23.29.4,48			B.
	Bessel xxiii. 703.	48,9	2,2	16,0	29,2	43,1	56,3	10,1	23.33.29,40				29,67			23.34.0,36			B.
	Bessel xxiii. 768.	15,0	28,2	41,7	55,1	9,0	22,1	35,3	23.36.55,20				55,51			23.37.26,21			B.
	(e) Bessel xxiii. 830.	22,1	35,3	48,7	2,3	16,0	29,3	42,9	23.40.2,37				2,66			23.40.33,36			B.
	(f) Bessel xxiii. 897.	59,1	12,5	26,1	39,8	53,7	7,0	20,2	23.43.39,78				40,03			23.44.10,74			B.
	Polaris SP.....	41,5	....	....	....	....	....	....	13.5.41,24				38,38		1,42				B.
Nov. 6	Bessel xxi. 1240.	48,0	2,0	15,7	29,4	43,4	57,1	11,0	21.52.29,52				29,74			21.53.1,65			B.
	α Aquarii.....	54,2	7,8	21,0	34,2	48,0	1,2	15,0	21.57.34,49				34,79	31,91					B.
	(d)(g) Polaris SP.....	....	21,0	53,2	45,0	....	....	....	13.15.40,66				37,80		1,47	13.6.10,79			B.
Nov. 7	(h) \odot 2 L.....	59,9	14,0	27,7	....	56,2	10,1	24,2	14.49.42,01				42,22			14.50.15,32			B.
	(h) α Pegasi.....	4,4	18,1	32,0	46,0	0,1	13,8	28,0	22.56.46,06				46,35	33,60					B.
	(h)(i) Spica.....	3,0	16,6	30,0	43,8	57,9	11,2	24,9	13.16.43,91				44,14	34,37	1,49	13.17.18,47			B.
Nov. 8	(k) \odot 1 L.....	....	57,8	11,9	....	....	....	8,0	14.51.25,94				26,17			14.52.0,60			B.
	\odot 2 L.....	59,0	13,1	27,1	....	55,4	9,4	23,4	14.53.41,22				41,45			14.54.15,88			B.
	(l) \odot 1 L.....	....	....	....	47,0	2,1	17,1	32,0	18.39.47,13				47,35			18.40.22,02			B.
	α Aquilæ.....	....	....	40,0	54,1	7,7	21,2	34,7	19.42.53,94				54,21	34,80		19.43.28,94			B.
	β Aquilæ.....	42,2	55,9	9,2	23,0	36,7	49,8	3,3	19.47.22,87				23,19	34,73		19.47.57,93			B.
	α^2 Capricorni....	28,7	42,3	56,1	10,0	24,0	37,7	51,5	20.9.10,04				10,27	34,92		20.9.45,03			B.
	29 Aquarii. sp....	58,1	12,4	26,1	40,2	54,8	8,7	22,8	21.53.40,44				40,66			21.54.15,53			B.
	α Aquarii.....	51,2	4,8	18,1	31,7	45,2	58,3	12,0	21.57.31,61				31,91	34,77		21.58.6,78			B.
	B.A.C. 7709.....	27,4	41,1	55,0	9,0	23,1	36,8	50,5	22.0.8,99				9,21			22.0.44,09			B.
	(k)(m) Bessel xxii. 49.	56,5	....	24,8	....	51,1	5,0	19,0	22.2.37,82				38,07			22.3.12,95			B.
	(n) Bessel xxii. 315.	....	38,2	....	7,0	20,2	....	46,5	22.15.6,20				6,47			22.15.41,36			B.
	Bessel xxii. 415..	....	28,0	41,4	55,7	9,3	23,3	....	22.18.55,54				55,77			22.19.30,66			B.
	(d) Neptune.....	29,0	42,8	56,2	10,1	24,1	37,4	51,0	22.25.10,08				10,31			22.25.45,21			B.
	α Pegasi.....	3,1	17,0	30,8	44,8	58,9	12,7	26,4	22.56.44,81				45,10	34,84		22.57.20,03			B.
	(d) Victoria.....	11,2	24,3	37,8	51,8	5,4	19,0	33,0	23.25.51,78				52,10			23.26.27,07			B.
	Bessel xxiii. 642.	54,0	7,1	20,6	34,0	47,8	1,0	14,7	23.36.34,17				34,45			23.31.9,42			B.
	(o) Bessel xxiii. 922.	57,1	10,1	23,2	....	....	4,2	17,0	23.44.37,03				37,33			23.45.12,31			B.
	Bessel xxiii. 976.	27,5	41,0	54,2	8,0	21,6	34,9	48,2	23.47.7,92				8,23			23.47.43,22			B.
	Bessel xxiii. 1041	14,7	28,2	41,7	55,2	9,0	22,2	35,7	23.49.55,24				55,51			23.50.30,50			B.
	Bessel xxiii. 1107	33,8	47,2	0,7	13,8	28,0	41,0	54,2	23.53.14,10				14,40			23.53.49,39			B.
	Flora.....	....	56,1	....	23,4	37,3	51,0	4,8	23.58.23,53				23,76			23.58.58,76			B.
	α Andromedæ....	....	35,8	51,1	6,3	22,0	37,0	52,2	0.0.6,44				6,67	34,84		0.0.41,67			B.
	H. C. 130.....	45,0	58,8	12,0	25,6	39,4	52,8	6,2	0.5.25,69				26,01			0.6.1,02			B.
	Bessel o. 174....	57,6	11,0	24,1	37,7	51,3	4,7	18,0	0.9.37,77				38,07			0.10.13,08			B.
	(p) Bessel o. 221....	33,3	47,4	0,7	14,0	27,4	41,0	54,4	0.12.14,03				14,34			0.12.49,35			B.
	(q) Bessel o. 283....	22,3	35,5	48,9	2,3	16,2	29,5	43,1	0.16.2,54				2,81			0.16.37,83			B.
	Bessel o. 355....	15,9	29,2	42,4	56,0	9,9	23,1	36,7	0.20.56,17				56,48			0.21.31,50			B.
	β Ceti.....	....	2,2	16,5	30,9	45,1	59,1	....	0.35.30,76				30,98	35,14		0.36.6,02			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

(a) The noted times were 24^s less. (b) 'High in the field.' The N.P.D. of H. C. is confirmed by a Circle observation. (c) Not observable at the other wires. This and the observation of Nov. 5 are used with that of Nov. 6 for azimuth error, but being taken at only one wire, are not reduced to apparent R.A. (See the calculation of azimuth errors in the Introduction.) (d) Faint. (e) 'A brighter precedes.' (f) 'The following star.' The other is Bessel xxiii. 896. (g) Quite hid at the other wires. (h) Faint from cloud. (i) Wire IV was set down 42.8 and has been altered conjecturally. (k) Cloudy. (l) Too faint to be seen at the first three wires. (m) Difficult to observe, so faint. (n) Through cloud or thick mist: very faint. (o) Faint at times. (p) 'Preceded by a brighter of Mag. 8, and of greater N.P.D.' (q) 'A brighter of Mag. 8 followed.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock appa- rently Slow.	Adopt- ed losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
Nov. 8	Bessel o. 942	34,1	47,2	0,9	14,1	28,1	41,3	54,8	0.53.14,36	-1,1	+2,4	-0,6	14,67		1,49	0.53.49,72	B.		
	Bessel o. 996.....	23,5	37,0	50,2	4,0	17,5	31,0	44,1	0.56.3,90				4,20			0.56.39,26	B.		
	α Ceti	13,9	27,2	40,7	54,2	7,9	21,1	34,6	2.53.54,23				54,54	35,14		2.54.29,72	B.		
Nov. 11	ν Aquarii				47,1	1,0	14,7	28,3	21.0.47,13		+2,6	-0,3	47,38		1,44	21.1.26,71	B.		
	(a)(b) 1 L.....	44,0	59,1	12,9	27,4	42,1	56,8	11,0	21.15.27,62				27,87			21.16.7,22	B.		
	(a)(c) Neptune.....	22,1	36,0	49,3	3,1	17,1	30,6	44,1	22.25.3,18				3,44			22.25.42,86	B.		
	(a)(c) β Ceti	43,7	57,8	12,0	26,2	40,8			0.35.26,30				26,55	39,55			B.		
	Polaris SP.....		13,0		33,5	15,0	51,5	31,5	13.5.31,69				28,92		1,42	13.6.9,19	B.		
	Arcturus.....	26,0	40,0	54,1	8,8	23,2	37,3	51,8	14.8.8,75				9,05	40,34		14.8.49,39	B.		
Nov. 12	(d) 1 L.....		4,1			47,2			22.4.32,68				32,93			22.5.13,74	B.		
	(a) Arcturus.....			52,8	7,1	21,9	36,0	50,2	14.8.7,29				7,59	41,81	1,51		B.		
Nov. 13	(a)(e) 1 L.....	57,7	11,7	25,6	39,8	53,9	7,8	21,7	22.52.39,75				40,01			22.53.22,32	B.		
	φ Aquarii.....	12,2	25,7	39,0	52,8	6,2	19,8	33,3	23.5.52,71				52,99			23.6.35,31	B.		
	ψ ³ Aquarii.....	48,0	1,8	15,2	29,0	43,0	56,2	10,1	23.10.29,05				29,31			23.11.11,64	B.		
	(a) β Ceti	40,9	55,2	9,1	23,2	38,0	51,9	6,1	0.35.23,48				23,73	42,36			B.		
	(f) Polaris SP.....			42,0	26,0	13,0		25,0	13.5.26,17				23,40		1,48	13.6.6,68	B.		
	(f) Spica.....	54,1	7,8	21,1	35,0	49,0	2,1	16,0	13.16.35,01				35,27	43,36		13.17.18,57	B.		
	Arcturus				5,8	20,1	34,3	48,8	14.8.5,76				6,06	43,35		14.8.49,41	B.		
Nov. 14	(f) ☉ 1 L.....	54,1	8,3	22,7	36,9	51,4	5,3	19,4	15.15.36,87				37,11			15.16.20,53	B.		
	☉ 2 L.....		25,3	39,3	53,9	8,2	22,2	36,3	15.17.53,77				54,01			15.18.37,43	B.		
	α Aquarii.....		55,4	9,5	22,3	35,8	49,2		21.57.22,44				22,76	43,83		21.58.6,60	B.		
	Neptune.....		30,7	44,1	57,7	11,7	25,1	39,0	22.24.57,87				58,13			22.25.41,99	B.		
	(g) φ Aquarii.....	10,8	24,2	37,7	51,3	5,1	18,6	32,0	23.5.51,38				51,66			23.6.35,56	B.		
	ψ ⁸ Aquarii	46,8	0,2	13,9	27,7	41,6	55,0	8,7	23.10.27,70				27,96			23.11.11,87	B.		
	(h) Victoria.....	11,8	26,2	39,5	53,3	6,8	20,6	33,9	23.28.53,16				53,50			23.29.37,43	B.		
	1 L.....	42,1	56,0	9,8	23,7	37,8	51,4	5,3	23.40.23,73				24,02			23.41.7,96	B.		
	Bessel xxiii. 956.	16,1	29,9	43,0	56,9	10,2	23,8	37,0	23.45.56,70				57,03			23.46.40,98	B.		
	H. C. 46918.....		37,0	50,2	3,9	17,7	30,8		23.48.3,92				4,25			23.48.48,20	B.		
	27 Piscium.....	37,6	50,9	4,1	17,9	31,4	45,0	58,2	23.50.17,87				18,16			23.51.2,11	B.		
	(c) Bessel xxiii. 1107	24,9	37,8	51,4	5,0	18,7	32,0	45,2	23.53.5,00				5,33			23.53.49,28	B.		
	33 Piscium.....	17,1	30,8	44,0	57,7	11,4	24,9	38,2	23.56.57,73				53,01			23.57.41,97	B.		
	Flora.....	4,8	18,2	31,8	45,6	59,3	13,1	26,8	23.59.45,66				45,92			0.0.29,88	B.		
	β Ceti	39,2	53,3	7,7	21,9	36,2	50,2	4,6	0.35.21,87				22,12	43,96		0.36.6,12	B.		
	Bessel o. 735.....	0,1	13,9	27,1	41,0	54,7	8,0	21,4	0.41.40,88				41,21			0.42.25,21	B.		
	Bessel o. 797.....	3,8	17,1	30,7	44,2	58,1	12,0	25,2	0.44.44,44				44,77			0.45.28,78	B.		
	B.A.C. 270.....	11,0	24,2	37,9	51,2	5,0	18,4	32,0	0.49.51,38				51,72			0.50.35,73	B.		
	Bessel o. 942.....	25,1	38,2	51,8	5,2	19,0	32,1	45,9	0.53.5,33				5,67			0.53.49,68	B.		
	Bessel o. 1048...	46,3	59,9	13,1	26,8	40,7	54,0	7,3	0.58.26,87				27,20			0.59.11,22	B.		
	Bessel i. 2.....	1,2	15,4	29,0	42,7	56,5	10,0	23,8	1.0.42,66				42,99			1.1.27,01	B.		
	Bessel i. 46.....	31,1	44,4	58,0	11,8	25,7	38,9	52,6	1.3.11,78				12,11			1.3.56,13	B.		
	(i) Polaris	19,0	0,0	37,0	18,5	5,5	42,0	21,0	1.5.20,43				23,16			1.6.7,18	B.		
	Bessel i. 110.....	24,9	38,3	52,0	5,6	19,2	33,0	46,2	1.7.5,60				5,94			1.7.49,97	B.		
	(k) Bessel i. 160....	34,5	48,0	1,3	15,0	28,7	42,0	55,2	1.10.14,96				15,29			1.10.59,32	B.		
	Bessel i. 274.....	34,0	47,3	0,9	14,2	28,1	41,0	54,8	1.16.14,33				14,66			1.16.58,70	B.		
	Bessel i. 356.....	49,1	3,0	16,2	30,1	43,9	57,2	11,0	1.20.30,07				30,40			1.21.14,44	B.		
	α Arietis.....	19,1	33,7	48,1	2,7	17,6	32,1	46,3	1.58.2,80				3,08	43,96		1.58.47,16	B.		
	α Ceti.....		18,3	31,5	45,2	58,9	12,1	25,6	2.53.45,19				45,53	44,19		2.54.29,67	B.		
Nov. 15	(a)(l) ☉ 1 L.....	58,7	13,2	27,1	41,6	56,0	10,1		15.19.41,56		+2,4		41,80			15.20.26,71	B.		
	☉ 2 L.....			44,3	58,6	13,0	27,1	41,2	15.21.58,62				58,86			15.22.43,77	B.		
Nov. 16	(m) ε Piscium.....	14,0	27,3	40,7	54,1	8,1	21,4	35,0	0.59.54,37				54,70		1,39	1.0.41,56	B.		
	(a)(n) 1 L.....	53,1	7,1	20,6	34,7	48,8	2,2	16,0	1.17.34,64				34,97			1.18.21,84	B.		
	α Piscium. sf. ...	53,0	6,2	19,4	33,0	46,8	0,0	13,4	1.53.33,11				33,43			1.54.20,34	B.		
	α Arietis.....	16,1	30,8	45,1	59,8	14,6	29,1	43,7	1.57.59,89				0,16	46,88		1.58.47,07	B.		

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',344, -26',892, -13',573, -0',060, +13',618, +26',913, +40',337.

(a) Cloudy. (b) 'Doubtful observation.' (c) Faint. (d) Dense cloud. (e) Clouds clearing off. (f) Tremor. (g) The counting was found to be 1/2 short: correction applied. (h) Wire IV was set down 52,3 and has been altered conjecturally. (i) 'Very good.' (k) 'A fainter of less N.P.D. preceded.' (l) Both Limbs without the dark glass. (m) The sky just clear. (n) Sometimes faint.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	s.	h.	m.	s.
Nov. 16	ξ^1 Ceti.....	38,1	52,0	5,5	19,1	32,9	46,3	0,0	2. 4. 19,13	-1,1	+2,4	-0,3	19,46		1,39	2. 5. 6,38			B.
	α Ceti.....	2,1	15,3	28,7	42,3	56,1	9,4	22,9	2. 53. 42,40				42,73	47,00		2. 54. 29,70			B.
	Aldebaran.....	53,1	7,2	21,1	35,1	49,1	3,2	17,1	4. 26. 35,13				35,42	47,08		4. 27. 22,48			B.
Nov. 18	Polaris SP.....	....	....	34,6	21,5	....	39,5	23,0	13. 5. 20,41				15,28		1,18	13. 6. 5,47			B.
	(a) Arcturus.....	16,1	30,3	44,7	59,0	13,4	27,8	41,9	14. 7. 59,03				59,25	50,24					B.
Nov. 19	(b) \odot 1 L.....	27,1	41,3	55,7	10,0	24,2	38,8	53,0	15. 36. 10,01				10,14			15. 37. 0,46			B.
	\odot 2 L.....	45,2	59,1	13,7	28,0	42,5	56,8	10,9	15. 38. 28,03				28,16			15. 39. 18,48			B.
	(c)(d) Neptune.....	10,3	24,2	38,0	52,4	5,7	19,1	32,4	22. 24. 51,73				51,88			22. 25. 42,53			B.
	α Andromedæ...	4,8	20,0	....	50,3	6,0	21,0	36,2	23. 59. 50,48				50,67	50,73					B.
	(e) Bessel o. 28.....	....	....	....	....	....	0,2	15,3	0. 1. 33,63				33,78			0. 2. 24,51			B.
	(c)(e) Polaris.....	....	....	24,5	7,5	56,0	....	11,0	1. 5. 9,64				14,54			1. 6. 5,32			B.
Nov. 21	\odot 1 L.....	46,6	1,0	15,1	29,8	44,2	58,2	12,8	15. 44. 29,68				29,81		1,09	15. 45. 22,22			B.
	\odot 2 L.....	5,1	19,3	33,9	48,2	2,9	17,0	31,3	15. 46. 48,25				48,38			15. 47. 40,79			B.
	α Ceti.....	56,2	9,8	23,1	36,6	50,1	3,5	17,0	2. 53. 36,62				36,86	52,90		2. 54. 29,77			B.
	(f) Aldebaran.....	47,2	1,2	15,2	29,1	43,5	57,3	11,3	4. 26. 29,26				29,49	53,05		4. 27. 22,47			B.
	Rigel.....	49,0	2,5	16,0	29,6	43,3	57,0	10,5	5. 6. 29,70				29,87	52,96		5. 7. 22,88			B.
Nov. 23	α Andromedæ...	0,3	15,6	30,4	46,0	1,4	16,4	31,4	23. 59. 45,93				46,12	55,23	1,12	0. 0. 41,40			T.
	(g) β Ceti.....	27,8	42,0	56,1	10,3	25,0	39,2	53,2	0. 35. 10,51				10,64	55,36		0. 36. 5,95			T.
	(h) * N.P.D. 81°. 4'.	32,0	45,8	59,4	13,1	....	....	....	1. 40. 13,04				13,28			1. 41. 8,64			T.
	(h) * N.P.D. 81°. 4'.	....	....	....	27,3	41,3	55,0	8,5	1. 40. 27,58				27,82			1. 41. 23,18			T.
	(h) Egeria.....	....	....	....	....	....	27,2	40,5	1. 40. 59,84				0,08			1. 41. 55,44			T.
	(i) α Arietis.....	....	22,1	37,0	51,3	6,4	20,4	....	1. 57. 51,44				51,65	55,38		1. 58. 47,02			T.
Nov. 25	\odot 1 L.....	35,0	49,2	3,2	18,1	32,4	47,0	1,4	16. 1. 18,05				18,29		1,15	16. 2. 15,17			T.
	\odot 2 L.....	54,2	8,4	23,0	37,3	52,0	6,1	20,8	16. 3. 37,40				37,64			16. 4. 34,52			T.
	α Pegasi.....	....	54,3	8,2	22,1	36,2	50,0	....	22. 56. 22,16				22,45	57,27		22. 57. 19,66			T.
	(k) α Andromedæ...	....	13,3	28,4	43,6	59,2	14,3	....	23. 59. 43,76				43,98	57,34		0. 0. 41,24			T.
	Flora.....	39,3	53,0	6,3	20,3	34,0	47,3	1,2	0. 5. 20,20				20,45			0. 6. 17,71			T.
	β Ceti.....	25,9	40,0	54,2	8,6	23,0	37,1	51,2	0. 35. 8,58				8,83	57,15		0. 36. 6,12			T.
	(l) Egeria.....	52,8	6,0	....	34,0	47,3	1,0	14,8	1. 39. 33,69				34,00			1. 40. 31,34			T.
	(l) * N.P.D. 81°. 4'.	....	....	....	....	....	38,2	52,0	1. 40. 11,07				11,38			1. 41. 8,72			T.
	(l) * N.P.D. 81°. 4'.	....	....	....	....	....	....	6,2	1. 40. 25,38				25,69			1. 41. 23,03			T.
Nov. 26	(c) \odot 1 L.....	....	3,2	17,5	32,1	47,0	1,2	15,7	16. 5. 32,23				32,47		1,22	16. 6. 30,54			T.
	\odot 2 L.....	8,1	22,9	37,0	....	....	....	....	16. 7. 51,59				51,83			16. 8. 49,90			T.
	Neptune.....	9,6	23,1	36,4	50,3	4,2	17,6	31,4	22. 24. 50,37				50,62			22. 25. 49,01			T.
	α Pegasi.....	39,4	53,3	6,9	20,9	35,1	48,8	2,6	22. 56. 21,00				21,29	58,41		22. 57. 19,71			T.
	α Andromedæ...	57,0	12,1	27,0	42,5	58,0	13,1	28,4	23. 59. 42,58				42,80	58,51		0. 0. 41,27			T.
	(c) α Arietis.....	4,4	18,9	33,5	48,2	3,1	17,4	32,1	1. 57. 48,23				48,48	58,55		1. 58. 47,05			T.
Nov. 27	Neptune.....	9,3	23,2	36,8	50,4	4,3	18,0	32,0	22. 24. 50,57				50,82		1,29	22. 25. 50,42			T.
	α Pegasi.....	38,1	52,1	5,6	19,5	33,8	47,2	1,4	22. 56. 19,68				19,97	59,72		22. 57. 19,60			T.
	α Andromedæ...	55,6	10,9	26,1	41,4	56,9	12,0	27,4	23. 59. 41,47				41,69	59,61		0. 0. 41,37			T.
	(m) α Ceti.....	49,3	2,8	16,1	29,5	43,2	56,5	10,1	2. 53. 29,65				29,97	59,81		2. 54. 29,81			T.
	(n) Aldebaran.....	40,6	54,4	8,3	22,3	36,6	50,5	4,3	4. 26. 22,43				22,71	59,94		4. 27. 22,63			T.
	\odot 2 L.....	52,5	6,1	20,0	33,9	48,0	1,7	15,5	12. 2. 33,96				34,28		1,41	12. 3. 34,64			T.
	(o) η Virginis.....	34,6	47,9	1,2	14,4	28,3	41,5	55,2	12. 11. 14,73				15,04			12. 12. 15,40			T.
	δ Virginis.....	23,1	36,5	49,8	3,1	17,2	30,3	43,9	12. 47. 3,41				3,73			12. 48. 4,13			T.
	Polaris SP.....	....	....	....	4,3	46,0	21,0	3,5	13. 5. 1,52				59,91			13. 6. 0,33			T.
	(p) Spica.....	37,2	51,0	4,3	18,1	32,1	45,5	59,2	13. 16. 18,20				18,45	60,50		13. 17. 18,88			T.
	(q) Arcturus.....	6,0	20,4	34,2	49,1	3,4	17,4	31,9	14. 7. 48,92				49,19	60,46		14. 8. 49,67			T.
	α Serpentis.....	11,9	25,4	38,9	52,4	6,0	19,4	33,0	15. 35. 52,43				52,74	60,75		15. 36. 53,31			T.
Nov. 28	(r) \odot 1 L.....	19,1	33,6	47,2	2,2	17,2	31,4	46,1	16. 14. 2,40				2,65			16. 15. 3,25			T.
	\odot 2 L.....	39,0	53,6	7,9	22,4	37,1	51,4	5,3	16. 16. 22,38				22,63			16. 17. 23,23			T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40^s.344, -26^s.892, -13^s.573, -0^s.060, +13^s.618, +26^s.913, +40^s.337.

(a) Cloud passing. (b) Tremor. (c) Cloudy. (d) 'Tempestuous weather; the clock scarcely audible.' Wire IV appears discordant.
 (e) Faint. (f) Not well defined. (g) The noted times have been increased 20^s. (h) Three objects taken, it being doubtful which was the Planet.
 (i) The observer felt unwell. (k) Corrected by +5^s for error of counting. (l) These observations prove that the third object on Nov. 23 was the Planet.
 (m) The evening generally cloudy. (n) Flaring. (o) Very faint. (p) Great motion. (q) The noted times were thought to be 1^s in error: correction +1^s has been applied.
 (r) The times for 2 L have been diminished 1^s conjecturally, the diameter by the observation being too large.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		."	."	."	."	."	."	."		h.	m.	s.	"	"	"	."	."	."	
Nov. 28	α Aquilæ.....	46,9	0,4	14,1	27,6	41,5	54,9	8,6	19.42.27,72	-1,1	+2,1	-0,2	28,04	60,74	1,41	19.43.28,85	T.		
	Neptune.....	....	....	37,2	50,9	5,0	18,5	32,0	22.24.51,04				51,29			22.25.52,26	T.
	α Andromedæ...	54,3	9,4	24,7	40,1	55,6	10,5	25,9	23.59.40,07				40,29	61,00		0.0.41,35	T.		
	(a) Flora.....	47,9	1,3	15,0	28,6	42,3	56,1	....	0.7.28,67				23,93			0.8.30,00	T.	
	10 Ceti.....	....	30,2	43,4	57,1	11,0	24,1	....	0.17.57,16				57,47			0.18.58,55	T.
	Bessel o. 385....	36,5	50,2	3,5	17,2	31,0	44,3	58,1	0.22.17,26				17,58			0.23.18,66	T.		
	Bessel o. 477....	7,0	20,1	33,4	47,1	0,9	14,1	27,5	0.26.47,16				47,48			0.27.48,57	T.		
	Bessel o. 527....	28,1	41,4	54,5	8,2	22,1	35,4	48,6	0.30.8,33				8,64			0.31.9,73	T.		
	β Ceti.....	22,1	36,4	50,3	4,6	19,1	33,1	47,3	0.35.4,70				4,95	61,00		0.36.6,05	T.		
	(b) Polaris.....	53,5	41,0	....	....	....	....	....	1.4.58,24				59,77				T.
	α Ceti.....	47,8	1,3	14,8	28,3	42,0	55,4	8,6	2.53.28,32				28,64	61,14		2.54.29,87	T.		
Nov. 29	(c) \odot 1 L.....	35,2	49,2	4,0	18,2	33,2	47,5	2,0	16.18.18,47				18,72		1,44	16.19.20,79	T.		
	\odot 2 L.....	55,0	9,3	24,0	38,1	53,0	7,4	22,0	16.20.38,40				38,65			16.21.40,72	T.		
	δ Ursæ Minoris..	48,0	34,5	19,5	7,7	58,9	43,0	29,5	18.19.8,73				9,22				T.		
	α Aquilæ.....	45,3	59,0	12,5	26,2	40,0	53,5	7,0	19.42.26,22				26,54	62,24		19.43.28,81	T.		
	β Aquilæ.....	14,6	28,0	41,3	55,0	8,5	22,1	35,6	19.46.55,01				55,33	62,35		19.47.57,61	T.		
	Neptune.....	10,1	23,9	37,3	51,1	5,0	18,5	32,2	22.24.51,15				51,40			22.25.53,84	T.		
	α Pegasi.....	35,3	49,2	3,1	16,8	30,9	44,7	58,5	22.56.16,93				17,22	62,44		22.57.19,69	T.		
	Victoria.....	32,0	45,4	....	12,0	26,0	39,4	53,0	23.40.12,36				12,68			23.41.15,19	T.	
	α Andromedæ...	52,8	8,1	23,1	38,2	53,9	9,0	24,2	23.59.38,47				38,69	62,58		0.0.41,22	T.		
	Flora.....	33,9	47,0	0,8	14,4	28,1	41,9	55,4	0.8.14,50				14,76			0.9.17,30	T.		
	(d) Egeria.....	....	34,0	47,3	1,0	14,8	28,0	41,8	1.37.1,01				1,32			1.38.3,95	T.	
	α Arietis.....	0,5	15,1	29,3	44,2	59,0	13,2	27,9	1.57.44,17				44,42	62,60		1.58.47,07	T.		
	Aldebaran.....	37,2	51,4	5,1	19,7	33,9	47,7	1,8	4.26.19,55				19,83	62,84		4.27.22,63	T.		
	(e) Rigel.....	39,1	52,8	6,2	19,5	33,4	47,1	0,8	5.6.19,85				20,11	62,81		5.7.22,95	T.		
	β Tauri.....	3,9	19,2	34,3	49,8	5,2	20,3	35,6	5.15.49,76				49,98	62,74		5.16.52,83	T.		
Dec. 2	(f) \odot 1 L.....	27,2	42,0	56,5	11,0	26,0	....	55,0	16.31.11,13		+2,3		11,38		1,32	16.32.17,34	T.	
	\odot 2 L.....	....	2,4	....	31,3	46,1	0,4	....	16.33.31,38				31,63			16.34.37,59	T.
Dec. 5	(g) α Pegasi.....	27,2	41,0	55,0	8,9	23,0	36,3	50,4	22.56.8,83		+2,7	-2,2	9,07	70,52	1,25	22.57.19,50	T.		
	α Andromedæ...	44,9	0,1	15,3	30,5	46,1	1,2	16,3	23.59.30,63				30,84	70,36		0.0.41,32	T.		
	(h) Flora.....	42,8	....	....	....	....	....	....	0.13.23,50				23,67			0.14.34,16	T.
	β Ceti.....	12,8	26,9	40,9	55,2	9,7	23,9	38,0	0.34.55,34				55,47	70,41		0.36.5,98	T.		
	(h)(i) Bessel i. 633....	52,0	5,6	19,0	....	45,8	....	14,0	1.33.32,73				32,98			1.34.43,54	T.
	α Arietis.....	....	7,2	21,3	36,2	51,0	5,4	....	1.57.36,22				36,44	70,56		1.58.47,02	T.
	β Tauri.....	56,1	11,1	26,4	41,6	57,2	12,3	27,8	5.15.41,78				41,98	70,85		5.16.52,73	T.		
α Orionis.....	14,7	28,3	41,8	55,4	9,1	22,6	36,2	5.45.55,44				55,69	70,85		5.47.6,47	T.			
Dec. 6	(k) \odot 1 L.....	46,0	0,8	15,0	29,3	44,1	59,0	13,9	16.49.29,73				29,85		1,29	16.49.41,12	T.		
	\odot 2 L.....	7,5	21,9	36,2	51,1	6,0	20,2	35,0	16.51.51,13				51,25			16.52.2,53	T.		
	δ Ursæ Minoris..	....	....	....	55,5	46,0	30,7	16,0	18.19.56,19				58,50				T.
	β Lyræ.....	32,7	48,6	4,6	20,8	37,2	53,1	9,1	18.44.20,87				21,07	11,53		18.44.32,45	T.		
	(l) α Aquilæ.....	....	....	....	....	30,9	44,4	57,9	19.43.17,15				17,40	11,33		19.43.28,83	T.
	β Aquarii.....	....	....	....	29,4	43,2	56,3	10,0	21.23.29,41				29,59	11,39		21.23.41,11	T.
Neptune.....	16,6	30,2	44,0	57,5	11,3	25,1	38,8	22.25.57,65				57,80			22.26.9,38	T.			
Dec. 7	α Andromedæ...	42,2	57,4	12,4	27,9	43,3	58,4	13,9	0.0.27,93				28,13	13,04	1,30	0.0.41,06	T.		
	(m) Flora.....	38,9	52,1	5,6	19,2	32,9	46,2	59,6	0.16.19,22				19,39			0.16.32,33	T.		
	β Ceti.....	10,2	24,3	38,4	52,9	7,1	21,2	35,4	0.35.52,78				52,91	12,95		0.36.5,87	T.		
	(n) Egeria.....	39,5	53,0	....	....	....	40,0	....	1.34.20,80				21,05			1.34.34,06	T.
	(o) α Arietis.....	50,1	4,6	18,8	33,4	48,6	3,0	17,4	1.58.33,70				33,92	13,07		1.58.46,96	T.		
	(o) α Ceti.....	36,3	49,7	3,1	16,4	30,3	43,5	57,0	2.54.16,62				16,86	12,92		2.54.29,95	T.		
Dec. 12	(p) α Aquarii.....	6,1	19,4	32,5	46,3	0,1	13,4	26,4	21.57.46,32		+3,3	0,0	46,69	19,55	1,11	21.58.6,31	T.		
	(q) Neptune.....	....	40,4	54,1	7,8	21,7	35,2	48,9	22.26.7,84				8,14			22.26.27,78	T.	
	27 Piscium.....	....	....	23,2	41,6	55,4	8,8	22,3	23.50.41,77				42,11			23.51.1,81	T.
	33 Piscium.....	41,1	54,2	8,0	21,4	35,4	48,8	2,3	23.57.21,60				21,92			23.57.41,63	T.		

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',344, -26',892, -13',573, -0',060, +13',618 +26',913, +40',337.

Dec. 5, 23^h, Hardy was put forward 1^m.

(a) Very faint. (b) After these wires the observer had to go to the Northumberland Dome. (c) 'Some large spots on the Sun.' (d) Extremely faint and at times disappearing. (e) Sometimes nearly hid by passing cloud, at other times flaring. (f) Cloudy: 2 L. observed doubtfully without the dark glass. (g) Bad image and scarcely seen. Great deposition of moisture on every part of the instrument. (h) Only seen occasionally in consequence of moisture on the eye-piece. (i) Taken by mistake for Egeria, which was not seen. (k) Bad definition and irregular motion. (l) Failure of the pencil. (m) 'Good observation.' (n) Excessively faint: moisture on the eye-piece. (o) Thick sky: only a few large stars visible. (p) Bad definition. (q) The noted times were 1^m greater.

RIGHT ASCENSIONS OBSERVED WITH THE TRANSIT IN THE YEAR 1850.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Dec. 12	α Andromedæ...	35,3	50,5	5,4	21,1	36,5	51,7	6,9	0. 0. 21,05	-1,1	+3,3	0,0	21,36	19,74	1,11	0. 0. 41,07			T.
	β 1 L.	7,1	21,1	35,0	48,5	3,0	16,4	30,1	0. 7. 48,75				49,10			0. 8. 8,82			T.
	β Ceti	3,1	17,1	31,4	45,8	0,2	14,2	28,3	0. 35. 45,73				46,02	19,78		0. 36. 5,76			T.
	δ Piscium....	56,1	9,4	23,1	36,6	50,4	4,0	17,3	0. 40. 36,70				37,08			0. 40. 56,82			T.
	20 Ceti	22,9	36,2	49,6	3,1	16,5	30,1	43,3	0. 45. 3,10				3,45			0. 45. 23,19			T.
	Polaris ....	....	5,5	....	24,0	14,0	47,5	....	1. 5. 26,48				30,20						T.
	α Ceti.....	29,3	42,4	56,2	9,4	23,3	36,4	50,1	2. 54. 9,59				9,97	19,80		2. 54. 29,81			T.
	Aldebaran....	20,5	34,4	48,3	2,6	16,8	30,4	44,4	4. 27. 2,48				2,84	19,95		4. 27. 22,76			T.
Dec. 13	\odot 1 L.	22,9	37,4	52,0	6,9	22,0	36,2	51,0	17. 20. 6,92				7,20		1,06	17. 20. 27,67			T.
	\odot 2 L.	44,8	59,4	14,0	28,8	43,9	58,2	13,0	17. 22. 28,87				29,15			17. 22. 49,62			T.
	(a) β 1 L.	44,4	58,2	12,1	26,0	40,0	53,7	7,4	0. 55. 25,97				26,34			0. 55. 47,14			T.
	(b) ν Piscium....	38,9	52,4	5,8	19,3	33,1	46,3	59,9	1. 33. 19,39				19,78			1. 33. 40,61			T.
	(c) σ Piscium....	29,6	43,1	56,7	10,4	24,3	37,4	51,0	1. 37. 10,35				10,74			1. 37. 31,57			T.
	(d) α Arietis....	42,1	56,4	11,1	25,6	40,6	55,1	9,4	1. 58. 25,76				26,10	20,85					T.
Dec. 14	(e) \odot 1 L.	46,1	1,2	15,3	30,2	45,3	0,1	14,9	17. 24. 30,44				30,72			17. 24. 52,25			T.
	\odot 2 L.	8,8	23,4	38,0	52,8	7,2	22,1	36,8	17. 26. 52,73				53,01			17. 27. 14,54			T.
Dec. 16	\odot 2 L. ....	....	12,9	27,2	42,0	57,1	11,4	26,0	17. 35. 42,09				42,37		1,12	17. 36. 6,10			B.
Dec. 17	ϵ Tauri	47,1	1,5	15,7	29,9	44,1	58,5	12,6	4. 19. 29,92				30,28			4. 19. 55,63			B.
	Aldebaran....	15,0	29,2	43,0	57,0	11,2	25,0	39,1	4. 26. 57,07				57,43	25,39		4. 27. 22,79			B.
	β 1 L.	54,0	8,8	23,1	37,8	52,2	6,3	21,0	4. 29. 37,60				37,96			4. 30. 3,32			B.
	γ Tauri.....	3,0	17,4	31,7	46,1	1,0	15,1	29,7	4. 53. 46,29				46,63			4. 54. 12,01			B.
	(f) Rigel.....	16,3	30,3	43,7	57,4	11,4	24,8	38,2	5. 6. 57,45				57,77	25,36		5. 7. 23,16			B.
	β Tauri.....	41,3	56,7	11,9	27,1	42,9	58,0	13,1	5. 16. 27,29				27,60	25,38		5. 16. 52,99			B.
Dec. 18	(g) \odot 1 L.	25,1	39,8	54,3	9,1	24,1	38,9	53,1	17. 42. 9,20				9,48			17. 42. 35,46			B.
	\odot 2 L.	48,1	2,2	17,1	31,8	47,0	1,1	16,1	17. 44. 31,91				32,19			17. 44. 58,17			B.
Dec. 19	Flora.....	2,2	15,8	29,0	42,8	56,2	9,4	23,0	0. 29. 42,63				42,97		1,19	0. 30. 10,38			B.
	β Ceti	55,3	9,7	23,8	37,9	52,1	6,3	20,7	0. 35. 37,97				38,26	27,45					B.
	α Orionis....	58,0	11,8	25,1	38,7	52,3	5,8	19,2	5. 46. 38,70				39,08	27,65					B.
	μ Geminorum...	45,4	0,0	14,3	29,1	43,9	58,2	12,3	6. 13. 29,03				29,37			6. 13. 57,07			B.
	γ Geminorum...	56,1	10,3	24,2	38,3	52,7	6,7	20,8	6. 28. 38,45				38,81			6. 29. 6,52			B.
	δ 2 L.	39,1	54,1	8,7	23,6	38,4	53,2	8,1	6. 39. 23,60				23,95			6. 39. 51,67			B.
Dec. 20	(h) \odot 1 L. ....	....	....	....	0,1	14,9	29,3	44,1	17. 51. 0,01			+3,4	0,29		1,22	17. 51. 28,58			B.
	\odot 2 L. ....	....	....	7,9	22,3	37,4	52,0	6,8	17. 53. 22,58				22,86			17. 53. 51,15			B.
	Bessel xxiii. 1219	9,1	22,4	36,0	49,1	3,1	16,4	30,0	23. 58. 49,45				49,84			23. 59. 18,44			B.
	α Andromedæ...	....	....	56,8	12,1	27,7	42,7	57,8	0. 0. 12,16				12,48	28,50		0. 0. 41,08			B.
	Bessel o. 83....	....	12,1	25,4	39,0	52,8	....	19,2	0. 4. 39,00				39,39			0. 5. 7,99			B.
	(i) Flora.....	17,1	30,0	44,0	57,2	10,9	24,2	....	0. 30. 57,32				57,66			0. 31. 26,29			B.
	Aldebaran....	11,7	25,8	39,8	53,7	8,0	21,7	35,8	4. 26. 53,78				54,14	28,69		4. 27. 22,97			B.
	α Orionis	56,9	10,2	23,9	37,2	51,2	4,8	18,1	5. 46. 37,47				37,86	28,88		5. 47. 6,75			B.
	ζ Geminorum...	4,1	18,3	32,8	47,1	1,7	16,0	30,1	6. 54. 47,16				47,51			6. 55. 16,46			B.
	δ Geminorum ..	0,2	15,1	29,6	43,9	58,9	13,2	27,7	7. 10. 44,08				44,42			7. 11. 13,38			B.
	Pollux.....	56,1	11,4	26,2	42,2	58,0	12,9	28,2	7. 35. 42,14				42,46	29,23		7. 36. 11,45			B.
	δ 2 L. ....	....	46,1	1,0	15,9	30,9	45,1	....	7. 45. 15,80				16,16			7. 45. 45,15			B.
Dec. 23	(k) \odot 1 L.	31,2	45,9	0,5	15,1	30,1	44,8	59,3	18. 4. 15,27			-0,2	15,54		1,25	18. 4. 47,61			B.
	\odot 2 L. ....	....	8,2	23,2	38,0	52,8	7,2	....	18. 6. 37,88				38,15			18. 7. 10,22			B.
	(k)(l) Flora.....	6,8	....	....	47,7	2,0	....	27,2	0. 34. 47,53				47,87			0. 35. 20,28			B.
Dec. 28	Polaris ....	....	....	....	52,5	....	15,5	....	1. 4. 54,15				58,37		1,35				B.
	α Ceti.....	9,3	22,8	36,1	49,8	3,2	16,8	30,0	2. 53. 49,72				50,09	39,60					B.
	Aldebaran....	0,9	14,8	28,8	43,0	57,2	11,0	25,1	4. 26. 42,97				43,33	39,51					B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40^s.344, -26^s.892, -13^s.573, -0^s.060, +13^s.618, +26^s.913, +40^s.337.

(a) The sky had just become partially clear. (b) Very faint from clouds. (c) Hid at times by cloud. (d) After this the sky was completely clouded and rain fell. (e) No clock-stars could be observed on this day. (f) No definition. (g) Great tremor. (h) The counting was found to be 1^s short: correction applied. (i) 'Good.' (k) Faint from cloud. (l) 'Several objects near this.'

MEAN RIGHT ASCENSIONS, JANUARY 1, 1850,

OF THE

FUNDAMENTAL STARS

OBSERVED IN THE YEAR 1850,

AS DEDUCED FROM EACH DAY'S OBSERVATION.

Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1850.	Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1850.	Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1850.	Day of Observation.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1850.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
Sirius continued.			Procyon continued.			α Hydræ continued.			β Leonis continued.		
Mar. 11	-0.41	6.38.32.31	Aug. 22	-0.21	7.31.26.96	Mar. 12	-1.09	9.20.13.03	Mar. 27	-1.17	11.41.24.35
12	-0.39	32.22	29	-0.36	27.00	13	-1.08	12.93	Apr. 10	-1.14	24.38
13	-0.37	32.29	Sept. 3	-0.48	27.02	15	-1.06	13.06	15	-1.12	24.36
15	-0.33	32.42	4	-0.50	26.87	23	-0.98	12.98	24	-1.06	24.49
Apr. 5	+0.09	32.30				25	-0.95	13.06	25	-1.05	24.35
May 2	+0.54	32.47				Apr. 5	-0.81	13.02	May 3	-0.98	24.38
21	+0.74	32.29				10	-0.74	12.93	9	-0.93	24.25
June 21	+0.77	32.25				18	-0.62	13.07	19	-0.82	24.46
July 7	+0.63	32.23				27	-0.49	13.09	28	-0.72	24.36
Aug. 4	+0.19	32.34				Aug. 25	-0.02	12.96	Oct. 7	-0.19	24.28
15	-0.04	32.18							28	-0.54	24.36
21	-0.18	32.39									
22	-0.20	32.18									
Sept. 1	-0.45	32.23									
Castor.			Pollux.			Regulus.			β Corvi.		
Jan. 5	-0.80	7.25.1.42	Jan. 26	-0.94	7.36.7.83	Jan. 26	-0.76	10.0.22.89	Mar. 25	-1.56	12.26.31.05
7	-0.82	1.26	Feb. 1	-0.96	7.72	Feb. 26	-1.06	22.67	26	-1.56	31.04
26	-0.98	1.52	16	-0.90	7.88	Mar. 6	-1.06	22.68	27	-1.57	31.06
Feb. 1	-0.99	1.39	18	-0.88	7.79	11	-1.05	22.71	Apr. 5	-1.60	31.01
7	-0.97	1.40	Mar. 1	-0.76	7.84	12	-1.05	22.87	18	-1.60	30.92
11	-0.95	1.44	7	-0.67	7.98	13	-1.04	22.80	25	-1.58	31.02
13	-0.93	1.40	11	-0.62	7.89	16	-1.03	22.83	May 2	-1.55	31.02
18	-0.89	1.45	12	-0.60	7.78	21	-1.00	22.78	3	-1.55	30.98
20	-0.87	1.41	13	-0.58	7.70	26	-0.93	22.73	9	-1.51	31.04
21	-0.86	1.27	15	-0.55	7.74	28	-0.94	22.81	11	-1.50	30.97
Mar. 1	-0.76	1.46	16	-0.53	7.73	Apr. 10	-0.80	22.63	18	-1.44	31.08
4	-0.72	1.54	25	-0.36	7.72	18	-0.70	22.74	June 4	-1.29	31.00
6	-0.68	1.44	28	-0.37	7.74	20	-0.67	22.88			
7	-0.66	1.41	Apr. 5	-0.15	7.90	24	-0.62	22.70			
12	-0.58	1.38	24	+0.20	7.87	27	-0.58	22.80			
13	-0.56	1.31	May 21	+0.57	7.89	Sept. 6	-0.08	22.85			
15	-0.52	1.18	Aug. 19	-0.13	7.79	27	-0.40	22.77			
16	-0.50	1.35	21	-0.18	7.92	Oct. 28	-1.13	22.67			
25	-0.32	1.38	22	-0.20	7.84						
28	-0.41	1.14	25	-0.27	7.79						
May 21	+0.64	1.39	29	-0.37	7.85						
Aug. 21	-0.24	1.43	Sept. 3	-0.50	7.86						
29	-0.45	1.35	4	-0.53	7.80						
			11	-0.72	7.85						
			Dec. 20	-3.83	7.62						

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1850.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1850.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1850.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1850.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
Arcturus continued.			α Serpentis.			α Ophiuchi continued.			γ Aquilæ continued.		
May 9	-1,42	14. 8. 49,42	Apr. 24	-1,38	15. 36. 53,14	Aug. 14	-1,79	17. 27. 58,39	July 8	-2,21	19. 39. 7,80
10	-1,42	49,37	May 2	-1,49	53,02	20	-1,70	58,48	9	-2,22	7,71
18	-1,42	49,36	18	-1,66	52,98	Sept. 12	-1,31	58,46	13	-2,26	7,73
19	-1,42	49,22	19	-1,67	53,01	13	-1,29	58,39	21	-2,32	7,61
22	-1,42	49,41	20	-1,68	53,07	16	-1,24	58,41	Aug. 3	-2,36	7,66
29	-1,39	49,24	22	-1,70	52,95	μ^1 Sagittarii.			9	-2,36	7,73
June 3	-1,36	49,27	28	-1,73	52,94	June 1	-1,96	18. 4. 47,57	12	-2,35	7,70
4	-1,36	49,34	June 3	-1,75	52,98	4	-2,40	47,53	14	-2,34	7,74
7	-1,34	49,30	4	-1,75	53,03	5	-2,41	47,62	16	-2,33	7,71
8	-1,33	49,35	7	-1,75	52,93	24	-2,45	47,56	20	-2,31	7,68
13	-1,30	49,27	13	-1,76	52,92	Aug. 14	-2,32	47,58	24	-2,27	7,79
21	-1,23	49,32	15	-1,76	53,02	16	-2,30	47,73	30	-2,22	7,73
Aug. 14	-0,53	49,36	27	-1,73	52,84	23	-2,21	47,63	Sept. 2	-2,18	7,78
23	-0,39	49,28	29	-1,72	52,95	24	-2,20	47,66	12	-2,05	7,71
26	-0,35	49,24	July 2	-1,71	53,01	Sept. 4	-2,03	47,64	Oct. 1	-1,75	7,60
Sept. 2	-0,25	49,27	Sept. 2	-0,94	53,00	6	-2,00	47,65	5	-1,67	7,74
7	-0,18	49,35	10	-0,81	53,08	7	-1,99	47,58	28	-1,27	7,54
Oct. 7	+0,06	49,29	Nov. 27	-0,48	52,83	12	-1,90	47,64	α Aquilæ.		
11	+0,07	49,19	δ Ophiuchi.			13	-1,88	47,62	Jan. 5	+1,80	19. 43. 27,93
15	+0,08	49,24	Apr. 27	-1,43	16. 6. 29,35	16	-1,83	47,64	29	+1,55	27,83
16	+0,08	49,24	May 11	-1,65	29,45	δ Ursæ Minoris.			Feb. 6	+1,42	27,83
Nov. 11	-0,11	49,28	20	-1,75	29,40	Mar. 4	+6,83	18. 20. 43,52	12	+1,32	27,75
13	-0,13	49,28	June 4	-1,87	29,33	β Lyrae.			May 28	-1,41	28,00
27	-0,37	49,30	15	-1,92	29,36	Jan. 4	+1,93	18. 44. 32,59	June 24	-2,00	27,96
ϵ Bootis.			22	-1,93	29,44	Feb. 3	+1,45	32,64	29	-2,09	27,91
Apr. 27	-1,45	14. 38. 25,95	27	-1,93	29,34	June 24	-2,19	32,59	July 1	-2,12	27,88
May 2	-1,48	26,23	July 1	-1,93	29,40	July 4	-2,27	32,56	4	-2,16	27,85
3	-1,49	26,32	Antares.			21	-2,31	32,71	5	-2,18	27,83
9	-1,51	26,41	Apr. 24	-1,58	16. 20. 13,21	24	-2,29	32,55	8	-2,21	27,80
10	-1,52	26,10	May 11	-1,92	13,12	Aug. 9	-2,19	32,53	9	-2,23	27,87
29	-1,52	26,23	22	-2,08	13,03	16	-2,10	32,52	13	-2,27	27,90
June 3	-1,50	26,13	29	-2,17	13,14	20	-2,04	32,65	15	-2,29	27,76
4	-1,50	26,24	June 7	-2,25	13,15	30	-1,87	32,66	21	-2,34	27,84
8	-1,48	26,24	8	-2,25	13,02	Sept. 21	-1,40	32,37	Aug. 3	-2,38	27,83
July 2	-1,27	26,15	13	-2,29	13,08	Dec. 6	-0,02	32,43	9	-2,39	27,82
α^2 Libræ.			21	-2,32	13,13	ζ Aquilæ.			12	-2,38	27,85
May 2	-1,71	14. 42. 35,25	22	-2,32	13,00	June 24	-2,05	18. 58. 31,09	14	-2,37	27,89
29	-1,83	35,37	27	-2,33	13,20	July 4	-2,17	31,01	16	-2,36	27,86
June 3	-1,83	35,09	July 1	-2,33	13,14	24	-2,26	30,95	20	-2,34	27,86
4	-1,83	35,28	8	-2,31	13,13	Aug. 9	-2,23	31,05	24	-2,31	27,79
7	-1,82	35,24	α Herculis.			16	-2,17	31,02	26	-2,29	27,90
8	-1,82	35,26	June 1	-1,81	17. 7. 48,71	20	-2,14	31,11	30	-2,26	27,68
22	-1,77	35,30	3	-1,83	48,64	30	-2,01	31,12	Sept. 2	-2,23	27,81
July 2	-1,70	35,26	22	-1,97	48,68	Sept. 25	-1,58	31,01	7	-2,17	27,84
Aug. 14	-1,18	35,32	α Ophiuchi.			γ Aquilæ.			12	-2,10	27,88
α Coronæ.			Mar. 5	+0,25	17. 27. 58,49	May 28	-1,43	19. 39. 7,75	16	-2,05	27,89
May 18	-1,64	15. 28. 20,19	June 3	-1,84	58,43	June 29	-2,09	7,80	21	-1,97	27,92
19	-1,65	20,18	8	-1,90	58,43	July 1	-2,10	7,75	25	-1,90	27,84
June 1	-1,69	20,38	15	-1,96	58,46	4	-2,16	7,82	Oct. 1	-1,80	27,84
3	-1,69	20,39	24	-2,02	58,24	5	-2,17	7,81	5	-1,73	27,79
7	-1,68	20,34	July 2	-2,05	58,44	β Aquilæ.			21	-1,45	27,94
13	-1,67	20,38	15	-2,04	58,57	May 28	-1,43	19. 39. 7,75	28	-1,33	27,66
27	-1,59	20,38	Aug. 3	-1,92	58,50	June 29	-2,09	7,80	31	-1,28	27,68
29	-1,58	20,30	γ Aquilæ.			July 1	-2,10	7,75	Nov. 8	-1,16	27,78
July 2	-1,55	20,33	May 28	-1,43	19. 39. 7,75	4	-2,16	7,82	28	-0,93	27,92
Aug. 14	-0,93	20,32	June 29	-2,09	7,80	5	-2,17	7,81	29	-0,93	27,88
Sept. 2	-0,57	20,38	July 1	-2,10	7,75	β Aquilæ.			Dec. 6	-0,88	27,95
5	-0,52	20,35	4	-2,16	7,82	May 28	-1,38	19. 47. 56,79			
			Aug. 3	-1,92	58,50	June 29	-2,06	56,76			

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1850.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1850.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1850.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1850.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
<i>β Aquilæ continued.</i>			<i>α² Capricorni continued.</i>			<i>β Aquarii continued.</i>			<i>α Aquarii continued.</i>		
July 1	-2,09	19. 47. 56,65	Aug. 12	-2,51	20. 9. 43,75	Oct. 1	-2,32	21. 23. 39,65	Oct. 7	-2,38	21. 58. 4,69
4	-2,14	56,75	Sept. 2	-2,42	43,74	15	-2,14	39,57	11	-2,33	4,80
5	-2,15	56,59	4	-2,41	43,60	16	-2,13	39,59	Nov. 8	-1,97	4,81
8	-2,19	56,80	6	-2,39	43,69	26	-1,92	39,62	14	-1,88	4,72
13	-2,25	56,66	13	-2,31	43,74	28	-1,95	39,82	Dec. 12	-1,53	4,78
15	-2,27	56,60	16	-2,27	43,72	29	-1,93	39,58			
Aug. 3	-2,37	56,81	Oct. 1	-2,06	43,74	31	-1,90	39,60			
9	-2,38	56,63	7	-1,97	43,59	Nov. 1	-1,89	39,61			
12	-2,37	56,77	11	-1,90	43,70	2	-1,87	39,59			
14	-2,37	56,64	12	-1,88	43,79	4	-1,85	39,63			
16	-2,36	56,84	16	-1,81	43,74	Dec. 6	-1,43	39,68			
20	-2,34	56,70	21	-1,73	43,62						
24	-2,31	56,72	31	-1,56	43,61						
26	-2,30	56,80	Nov. 8	-1,45	43,58						
30	-2,27	56,66									
Sept. 2	-2,24	56,72									
6	-2,19	56,61									
7	-2,18	56,69									
13	-2,10	56,75									
25	-1,92	56,75									
Oct. 1	-1,82	56,70									
12	-1,63	56,70									
28	-1,36	56,57									
31	-1,31	56,60									
Nov. 8	-1,19	56,74									
29	-0,95	56,66									
<i>α² Capricorni.</i>			<i>β Aquarii.</i>			<i>α Aquarii.</i>			<i>α Pegasi.</i>		
Aug. 3	-2,49	20. 9. 43,67	July 24	-2,27	21. 23. 39,73	Jan. 5	+1,48	21. 58. 4,73	Jan. 5	+1,06	22. 57. 17,60
			Aug. 9	-2,46	39,64	Aug. 9	-2,42	4,76	Aug. 22	-2,58	17,46
			20	-2,52	39,60	20	-2,52	4,65	23	-2,59	17,50
			23	-2,53	39,63	22	-2,53	4,60	26	-2,62	17,49
			26	-2,53	39,70	23	-2,53	4,78	29	-2,65	17,54
			29	-2,54	39,58	26	-2,55	4,69	Sept. 2	-2,67	17,62
			30	-2,54	39,47	29	-2,56	4,74	10	-2,71	17,47
			Sept. 6	-2,52	39,66	30	-2,56	4,66	12	-2,72	17,55
			7	-2,52	39,59	Sept. 2	-2,56	4,71	28	-2,71	17,49
			12	-2,50	39,68	6	-2,56	4,56	Oct. 7	-2,67	17,63
			13	-2,49	39,63	7	-2,56	4,63	12	-2,63	17,58
			21	-2,43	39,67	12	-2,55	4,82	28	-2,71	17,55
			28	-2,36	39,63	21	-2,51	4,75	Oct. 15	-2,60	17,53
						25	-2,48	4,81	21	-2,55	17,63
						28	-2,46	4,68	31	-2,44	17,46
						Oct. 5	-2,40	4,63	Nov. 1	-2,43	17,53
									2	-2,42	17,64
									8	-2,35	17,68
									25	-2,13	17,53
									26	-2,11	17,60
									27	-2,10	17,50
									29	-2,07	17,62
									Dec. 5	-2,00	17,50

MEAN RIGHT ASCENSIONS, JAN. 1, 1850,

OF STARS

OBSERVED IN THE YEAR 1850,

AS DEDUCED FROM EACH DAY'S OBSERVATION;

AND

A CATALOGUE

OF

CONCLUDED MEAN RIGHT ASCENSIONS,

JANUARY 1, 1850;

WITH THE ANNUAL VARIATIONS.

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	°		h. m. s.	s.	
1	α ANDROMEDÆ.....					61.44	30	0. 0. 38.63	+ 3,083	
2	Bessel o. 28.....	Nov. 19		-2.58		99.49	1	0. 2. 21.93	3,068	No. 2. Observed at only two wires. No. 3. The other star was judged to be of Mag. 9.
3	Bessel o. 64. <i>sf.</i>	Oct. 29	8	2.64		93.55	1	0. 3. 53.16	3,069	
4	Bessel o. 83.....	Dec. 20		2.22		84.39	1	0. 5. 5.77	3,073	
5	H. C. 130.....	Nov. 8	8 $\frac{1}{4}$	2.65		84.15	1	0. 5. 58.37	3,074	
6	Bessel o. 110.....	Oct. 29	8	2.69		87.19	1	0. 6. 47.61	3,072	
7	Bessel o. 174.....	Nov. 8	8 $\frac{3}{4}$	2.62		90.28	1	0. 10. 10.46	3,070	
8	Bessel o. 221.....		10	2.67		85.59	1	0. 12. 46.68	3,076	
9	Bessel o. 266.....	Oct. 29	8	2.67	25.80					
10		30	8 $\frac{3}{4}$	2.67	25.86	94.26	2	0. 15. 25.83	3,064	
11	Bessel o. 283.....	Nov. 8	8.9	2.61		95.20	1	0. 16. 35.22	3,062	
12	45 Piscium.....	Oct. 30	7	2.77		83. 8	1	0. 17. 58.14	3,083	
13	10 Ceti.....	Nov. 28	7	2.47		90.53	1	0. 18. 56.08	3,069	
14	Bessel o. 355.....	Oct. 30	8 $\frac{1}{4}$	2.73	28.80					
15		Nov. 8	9 $\frac{1}{4}$	2.69	28.81	88. 9	2	0. 21. 28.81	3,075	
16	Bessel o. 385.....		28	2.58		83. 6	1	0. 23. 16.08	3,087	
17	Bessel o. 402.....	Oct. 30	8 $\frac{1}{2}$	2.75		86.58	1	0. 24. 14.83	3,078	
18	Bessel o. 446.....		26	2.79		85. 6	1	0. 26. 18.40	3,084	
19	Bessel o. 477.....		30	2.77	45.85					
20		Nov. 28	8	2.57	46.00	86.32	2	0. 27. 45.93	3,080	
21	Bessel o. 492.....	Oct. 26	9 $\frac{3}{4}$	2.74		91.25	1	0. 28. 43.75	3,066	
22	Bessel o. 511.....		30	2.78		85.42	1	0. 30. 18.93	3,084	
23	Bessel o. 527.....	Nov. 28	8.9	2.56		89.53	1	0. 31. 7.17	3,071	
24	Bessel o. 544.....	Oct. 26	8	2.79		87.10	1	0. 32. 3.97	3,080	
25	Bessel o. 560.....	Sept. 10		2.52	46.90					No. 25. Identified by Equatorial Observations Oct. 27, 1855, with Bessel o. 560, and estimated of Mag. 8.
26		11		2.52	46.86	98.28	2	0. 32. 46.88	3,042	
27	Bessel o. 567.....	Oct. 30	8 $\frac{1}{4}$	2.76		89.39	1	0. 33. 9.30	3,072	
28	β CETI.....					108.49	24	0. 36. 3.48	3,013	
29	Bessel o. 678.....		12	2.79	4.18					
30		26	9	2.79	4.09	88.28	2	0. 39. 4.14	3,077	
31	δ Piscium.....	Dec. 12		2.53		83.14	1	0. 40. 54.29	3,099	
32	Bessel o. 735.....	Oct. 26	9	2.85	22.39					
33		Nov. 14	8 $\frac{1}{4}$	2.78	22.43	83.22	2	0. 42. 22.41	3,099	
34	Bessel o. 751.....	Oct. 12	9 $\frac{1}{2}$	2.82		85.10	1	0. 43. 15.33	3,092	
35	20 Ceti.....	Sept. 21		2.62	20.73					
36		Dec. 12		2.46	20.73	91.58	2	0. 45. 20.73	3,062	
37	Bessel o. 797.....	Nov. 14	8 $\frac{1}{4}$	2.83		80.54	1	0. 45. 25.95	3,113	
38	*.....	Oct. 12	9 $\frac{1}{2}$	2.78		91.17	1	0. 48. 25.32	3,064	No. 38. The N.P.D. by a Circle Observation Oct. 4, 1855. No. 39. Bessel's R.A. is 1 ^m too small.
39	Bessel o. 842.....		26	2.79		91.17	1	0. 49. 20.04	3,064	
40	B.A.C. 270.....	Nov. 14	7	2.81		83.58	1	0. 50. 32.92	3,102	
41	B.A.C. 274.....	Oct. 12	7	2.84	3.42					
42		26	6	2.87	3.41	84.20	2	0. 52. 3.41	3,101	
43	Bessel o. 942.....	Nov. 8	9	2.83	46.89					
44		14	9	2.81	46.87	85.40	2	0. 53. 46.88	3,094	
45	B.A.C. 286.....	Oct. 26	7	2.90		81.59	1	0. 54. 41.48	3,115	
46	Bessel o. 996.....		12	2.79	36.36					
47		Nov. 8	8 $\frac{1}{4}$	2.80	36.46	90.11	2	0. 56. 36.41	3,070	
48	Bessel o. 1013.....	Oct. 26	8	2.90		82.28	1	0. 57. 35.83	3,115	
49	Bessel o. 1048.....	Nov. 14	9	2.81		87. 0	1	0. 59. 8.41	3,089	
50	Bessel o. 1074.....	Oct. 12	9	2.84	22.62					
51		26	9	2.87	22.95	85.42	2	1. 0. 22.78	3,097	
52	ϵ Piscium.....	Sept. 21		2.66	38.91					
53		Nov. 16		2.82	38.74	85. 9	2	1. 0. 38.83	3,100	
54	Bessel i. 2.....		14	2.91		79.58	1	1. 1. 24.10	3,133	
55	Bessel i. 22.....	Oct. 26	8.9	2.95		79.39	1	1. 2. 43.64	3,137	
56	Bessel i. 46.....		12	2.88	53.07					
57		Nov. 14	9	2.89	53.24	82.13	2	1. 3. 53.15	3,121	
58	POLARIS.....					1.29	48	1. 5. 2.33	17,596	
59	Bessel i. 110.....		14	2.91		82. 2	1	1. 7. 47.06	3,125	
60	Bessel i. 160.....		14	2.86		86.41	1	1. 10. 56.46	3,094	
61	Bessel i. 274.....		14	2.87		87.46	1	1. 16. 55.83	3,088	
62	Bessel i. 284.....	Oct. 29	8 $\frac{1}{4}$	2.88		87.43	1	1. 17. 19.67	3,088	
63	Bessel i. 356.....	Nov. 14	8	2.98		80.21	1	1. 21. 11.46	3,149	
64	Bessel i. 376.....	Oct. 29	10	2.98		80.53	1	1. 22. 15.25	3,146	
65	Bessel i. 454.....		29	2.91		86.39	1	1. 26. 18.14	3,099	
66	π Piscium.....		29	3.03		78.38	1	1. 29. 9.13	3,173	
67	Bessel i. 568.....		29	2.93		85.50	1	1. 32. 19.87	3,109	
68	ν Piscium.....	Dec. 13		2.79		85.16	1	1. 33. 37.82	3,115	
69	Bessel i. 633.....		5	-2.94		80.31	1	1. 34. 40.60	+ 3,160	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	o		h. m. s.	s.	
70	α Piscium.....	Dec. 13		-2,87		81. 36	1	1. 37. 28,70	+ 3,152	Nos. 71 and 73. These two stars were represented by diagrams as having nearly the same N.P.D. The N.P.D. of the following star was obtained by a Circle Observation Nov. 25. In calculating the concluded R.A. weights are given to the results of each day proportional to the number of wires. The magnitudes were estimated Dec. 12, 1855, with the Circle Telescope. No. 72. At only two wires. No. 74. At only one wire.
71	* (Mag. 10).....	Nov. 23		-3,02	5,62	81. 4	2	1. 41. 5,64	3,160	
72		25		-3,01	5,71					
73	* (Mag. 9).....	23		-3,02	20,16	81. 4	2	1. 41. 20,13	3,161	
74		25		-3,02	20,01					
75	Bessel I. 830	2	7.8	-3,05		80. 7	1	1. 46. 2,04	3,175	
76	Bessel I. 928	1	7 $\frac{3}{4}$	-3,09		78. 21	1	1. 52. 15,69	3,200	
77	α Piscium. sf.	16		-2,96		87. 57	1	1. 54. 17,38	3,093	
78	Bessel I. 981	1	7 $\frac{3}{4}$	-3,02		82. 56	1	1. 54. 48,43	3,150	
79	α ARIETIS					67. 15	23	1. 58. 43,71	3,363	
80	Bessel I. 1094.....	1	9	-3,01		84. 25	1	2. 1. 0,79	3,136	No. 91. This star is Bessel z. 394, 2h. 32m. 50s.
81	ξ^1 Ceti.....	16		-3,10		81. 52	1	2. 5. 3,28	3,170	
82	Bessel II. 261.....	Jan. 5	8	+0,01		80. 58	1	2. 16. 30,03	3,190	
83	Bessel II. 316.....	5	7.8	-0,01		80. 28	1	2. 19. 25,09	3,199	
84	ξ^2 Ceti.....	Oct. 21		-2,95		82. 13	1	2. 20. 11,37	3,176	
85	Bessel II. 412.....	Jan. 5	7	+0,03		75. 38	1	2. 24. 41,86	3,273	
86	Bessel II. 465.....	5	7.8	-0,08		76. 54	1	2. 27. 50,84	3,258	
87	ν Ceti.....	Oct. 21		-2,90		85. 4	1	2. 28. 0,44	3,140	
88	H. C. 4843.....	Jan. 4	7	-0,16		70. 5	1	2. 29. 7,43	3,364	
89	H. C. 4925.....	4	8	-0,14	50,74	73. 55	2	2. 31. 50,77	3,308	
90		5	8.9	-0,13	50,79					No. 101. The R.A. exceeds by about 1" that of H.C. 6141, which is the same star.
91	*.....	4	9 $\frac{1}{4}$	-0,15		73. 55	1	2. 33. 19,57	3,310	
92	Bessel II. 597.....	5	8	-0,13		75. 26	1	2. 34. 14,04	3,287	
93	H. C. 5099.....	4	7 $\frac{3}{4}$	-0,17	23,21	73. 37	2	2. 37. 23,20	3,320	
94		5	8	-0,16	23,18					
95	Bessel II. 905	Nov. 4	8	-3,14		80. 6	1	2. 51. 43,92	3,230	
96	α CETI					86. 30	18	2. 54. 26,61	3,127	
97	Bessel II. 1082.....	4	7 $\frac{1}{4}$	-3,19		77. 43	1	3. 0. 47,92	3,277	
98	Bessel III. 43.....	4	8 $\frac{3}{4}$	-3,16		79. 25	1	3. 3. 33,66	3,250	
99	H. C. 6032.....	4	7 $\frac{1}{2}$	-3,43		67. 25	1	3. 8. 13,25	3,478	
100	H. C. 6050.....	Feb. 6	7 $\frac{1}{2}$	+0,12		72. 59	1	3. 8. 44,76	3,371	No. 130. The N.P.D. was deduced from an Equatorial Observation taken Nov. 3, 1855.
101	H. C. 6142.....	Nov. 4	7	-3,35		70. 40	1	3. 11. 48,63	3,419	
102	H. C. 6247.....	4	8 $\frac{1}{4}$	-3,27		73. 48	1	3. 15. 26,31	3,363	
103	α Tauri.....	Oct. 21		-2,90		81. 30	1	3. 16. 44,95	3,222	
104	B.A.C. 1064.....	Feb. 7	6 $\frac{1}{2}$	+0,08		71. 46	1	3. 18. 30,01	3,406	
105	ξ Tauri.....	18		+0,30	2,78					
106		Oct. 21		-2,91	2,82	80. 48	2	3. 19. 2,80	3,236	
107	B.A.C. 1079.....	Feb. 7	7	+0,08		73. 45	1	3. 21. 15,20	3,370	
108	η Tauri.....	Nov. 2	7	-3,40		67. 17	1	3. 28. 9,49	3,512	
109	H. C. 6666.....	Feb. 7	8	+0,02		71. 8	1	3. 29. 33,97	3,432	
110	Bessel III. 569.....	Nov. 2		-3,18		76. 36	1	3. 30. 56,88	3,324	
111	Bessel III. 626.....	Feb. 7	8 $\frac{1}{2}$	+0,03		77. 52	1	3. 33. 11,20	3,301	
112	ϵ Tauri.....	18		+0,19		79. 19	1	3. 40. 3,09	3,277	
113	H. C. 7116.....	6	8	-0,09		67. 46	1	3. 43. 12,90	3,523	
114	H. C. 7196.....	6	8	-0,12		65. 20	1	3. 46. 8,08	3,583	
115	H. C. 7325.....	6	7 $\frac{1}{2}$	-0,13		66. 48	1	3. 50. 8,44	3,554	
116	λ Tauri.....	Jan. 23		-0,28		77. 56	1	3. 52. 22,68	3,313	
117	H. C. 7434.....	Feb. 6	7 $\frac{1}{2}$	-0,14		68. 0	1	3. 53. 24,62	3,530	
118	Λ^1 Tauri.....	Jan. 23		-0,36		68. 20	1	3. 55. 50,23	3,526	
119	H. C. 7528.....	Feb. 6	8	-0,16		66. 37	1	3. 56. 18,51	3,567	
120	H. C. 7904.....	7	8 $\frac{1}{2}$	-0,20		66. 18	1	4. 6. 24,18	3,587	
121	H. C. 7967.....	18	7	+0,02		74. 10	1	4. 8. 16,82	3,406	
122	H. C. 8031.....	7	9	-0,18		72. 33	1	4. 10. 0,08	3,443	
123	H. C. 8065.....	18	7 $\frac{1}{2}$	-0,02		66. 46	1	4. 11. 3,82	3,581	
124	ϕ Tauri.....	Jan. 30		-0,37		63. 1	1	4. 11. 8,26	3,676	
125	B.A.C. 1342.....	30	6.7	-0,34		69. 32	1	4. 13. 33,75	3,517	
126	η^1 Tauri.....	30	5.6	-0,33		74. 44	1	4. 17. 48,33	3,400	
127	B.A.C. 1373.....	Feb. 18	6	-0,06		68. 43	1	4. 19. 7,09	3,542	
128	ϵ Tauri.....	20		-0,02	51,98					
129		Dec. 17		-3,75	51,88	71. 9	2	4. 19. 51,93	3,484	
130	*.....	Feb. 18	8 $\frac{1}{2}$	-0,05		74. 10	1	4. 21. 31,62	3,415	
131	B.A.C. 1391.....	Jan. 30	6	-0,35		74. 8	1	4. 21. 58,84	3,416	
132	B.A.C. 1406.....	30	7 $\frac{1}{2}$	-0,36		74. 0	1	4. 25. 3,58	3,422	
133	ALDEBARAN.....					73. 48	24	4. 27. 19,15	3,433	
134	H. C. 8730.....	Feb. 7	9	-0,31		67. 39	1	4. 30. 15,12	3,579	
135	B.A.C. 1468.....	12	7 $\frac{1}{2}$	-0,24		71. 32	1	4. 37. 31,56	3,488	
136	H. C. 9028.....	12	8 $\frac{1}{2}$	-0,27		68. 19	1	4. 40. 49,03	3,571	
137	H. C. 9159.....	12	9	-0,30		67. 11	1	4. 45. 7,74	3,603	
138	H. C. 9195.....	13	6 $\frac{1}{2}$	-0,27		70. 46	1	4. 46. 9,77	+ 3,513	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	°		h. m. s.	s.	
139	99 Tauri	Feb. 13	6	-0,32		66.17	1	4.48.43,01	+3,630	
140	“ Tauri	Jan. 23		-0,59	8,16					
141	“	Dec. 17		-3,88	8,13	68.38	2	4.54.8,15	3,572	
142	H. C. 9786	Feb. 12	9	-0,41		64.14	1	5.5.15,44	3,698	
143	RIGEL					98.23	17	5.7.19,87	2,880	
144	“ Tauri	12	7	-0,41		68.4	1	5.10.16,07	3,596	
145	β TAURI					61.31	13	5.16.48,82	3,789	
146	H. C. 10229	13	8	-0,42		73.31	1	5.19.45,39	3,460	
147	118 Tauri. <i>nf</i>	6	8	-0,56		64.59	1	5.20.2,82	3,685	
148	H. C. 10252	22	8½	-0,28		73.42	1	5.20.11,14	3,456	
149	H. C. 10348	6	9.10	-0,59	6,20					
150	“	22		-0,33	6,12	63.8	2	5.23.6,16	3,739	
151	B.A.C. 1733	4	7	-0,58		69.38	1	5.24.44,06	3,561	
152	H. C. 10488	22	8½	-0,35		62.11	1	5.27.13,82	3,769	
153	* (Mag. 8.9)	Mar. 6		-0,08		83.20	1	5.27.19,43	3,225	No. 153. Not the star observed with the Circle on the same day, which was following and much fainter. The N.P.D. is taken from observations in 1845.
154	B.A.C. 1754	Feb. 4	7½	-0,63		63.10	1	5.27.47,00	3,740	
155	ζ TAURI	Jan. 25		-0,69		68.57	1	5.28.40,96	3,580	
156	H. C. 10633	Feb. 13	8	-0,52		62.18	1	5.31.14,74	3,767	
157	H. C. 10669	22	8½	-0,37		63.28	1	5.32.16,24	3,733	
158	H. C. 10816	Mar. 6	9.10	-0,13		82.6	1	5.35.32,92	3,255	
159	128 Tauri	Feb. 13	6½	-0,49		73.59	1	5.36.15,07	3,452	
160	H. C. 10971	13	7	-0,51		72.37	1	5.39.45,35	3,488	
161	Bessel v. 1015	Mar. 7	8	-0,13		82.6	1	5.39.46,44	3,255	
162	α ORIONIS					82.38	18	5.47.3,15	3,247	
163	Bessel v. 1204	6		-0,19	8,43					
164	“	7	8	-0,18	8,32	104.10	2	5.47.8,38	2,734	
165	H. C. 11276	Feb. 18	8½	-0,49		71.2	1	5.50.6,98	3,530	
166	Bessel v. 1284	Mar. 6	7½	-0,20		82.10	1	5.50.18,88	3,254	
167	H. C. 11358	Feb. 18	8½	-0,52		66.16	1	5.52.22,53	3,658	
168	H. C. 11482	18	9	-0,52		68.22	1	5.56.6,83	3,601	
169	H. C. 11589	18		-0,54		66.15	1	5.58.55,89	3,659	
170	H. C. 11592	Mar. 7	8½	-0,25		66.7	1	5.59.1,44	3,663	
171	H. C. 11684	12	8	-0,17		63.58	1	6.1.34,29	3,724	
172	11 Geminorum	12	7½	-0,21		66.29	1	6.10.11,44	3,652	
173	B.A.C. 2042	6		-0,34		66.10	1	6.12.40,18	3,660	
174	H. C. 12103	12	10	-0,22		63.16	1	6.13.3,77	3,743	
175	μ Geminorum	Feb. 21		-0,55	53,28					No. 174. This is Σ 897. Note of the observer, “ <i>np</i> taken,” which is in accordance with the relative positions of the stars as given by Struve. In H. C., No. 12101, which is the south star, precedes.
176	“	22		-0,53	53,27	67.25	3	6.13.53,22	3,636	
177	“	Dec. 19		-4,26	53,12					
178	H. C. 12148. <i>sp.</i>	Mar. 9	8	-0,27		72.21	1	6.14.5,28	3,495	
179	H. C. 12217	6		-0,35		66.13	1	6.16.9,96	3,658	
180	Bessel v. 544	6		-0,35		104.25	1	6.18.12,25	2,728	
181	15 Geminorum	9	7½	-0,30		69.7	1	6.18.50,18	3,579	
182	H. C. 12356	11	6½	-0,27		73.40	1	6.19.49,81	3,461	
183	H. C. 12424	9	8	-0,32		69.29	1	6.21.45,59	3,569	
184	H. C. 12462	11	8	-0,29		67.43	1	6.22.57,01	3,616	
185	20 Geminorum. <i>sp.</i>	6	8	-0,37		72.7	1	6.23.32,61	3,500	
186	H. C. 12486	7	8	-0,38		62.4	1	6.23.35,94	3,776	No. 185. The other star was considered to be of Mag. 7.
187	H. C. 12581	11	7¾	-0,30		73.7	1	6.26.15,90	3,474	No. 186. The R.A. of H. C. is 5° too great. The middle wire of Lalande should have been diminished 5°.
188	H. C. 12597	7	9	-0,33		69.0	1	6.26.39,48	3,580	
189	23 Geminorum	6	7	-0,39		73.5	1	6.27.20,99	3,474	
190	H. C. 12650	12	8	-0,29		70.43	1	6.28.11,74	3,535	
191	γ Geminorum	Dec. 19		-3,75		73.29	1	6.29.2,77	3,464	
192	H. C. 12688	Mar. 11	8	-0,32		68.1	1	6.29.20,37	3,606	
193	H. C. 12712	6	6¾	-0,41	3,83	67.50	2	6.30.3,83	3,611	
194	“	7	8	-0,39	3,83					
195	H. C. 12724	12	8¾	-0,30		67.52	1	6.30.29,31	3,610	
196	H. C. 12821	6		-0,42		87.18	1	6.32.35,13	3,133	
197	B.A.C. 2184	13	7½	-0,39		73.28	1	6.32.42,58	3,463	
198	26 Geminorum	7	7½	-0,42		72.13	1	6.33.40,22	3,495	
199	H. C. 12859	9	9	-0,39		61.27	1	6.34.9,93	3,790	
200	H. C. 12914	13	8	-0,31		69.10	1	6.35.34,36	3,573	
201	SIRIUS					106.31	28	6.38.32,30	2,645	
202	H. C. 13139	4	9	-0,49	59,16					
203	“	11	9	-0,37	59,07	73.37	2	6.41.59,12	3,457	
204	H. C. 13189	7	9	-0,45		73.13	1	6.43.12,68	3,467	
205	H. C. 13235	11	8¾	-0,39		67.3	1	6.44.33,01	3,626	
206	H. C. 13259	4	8	-0,53	10,28					
207	“	6	8	-0,49	10,20	63.17	2	6.45.10,24	+3,731	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
208	H. C. 13279.....	Mar. 1	7½	-0,57		65.34	1	6.45.33,89	+3,666	No. 208. H. C. 13280 is the same star, the N.P.D. being 1' too small.
209	H. C. 13309.....	7	8	-0,48		62.34	1	6.46.26,28	3,750	
210	*.....	1	8½	-0,60		65.51	1	6.53.48,35	3,654	
211	H. C. 13594.....	12	8	-0,42		64.27	1	6.54.15,18	3,692	
212	ζ Geminorum.....	Jan. 26		-0,88	12,61					No. 210. This star is Bessel z. 348, 6h. 51m. 45s.
213		Dec. 20		-3,83	12,63	69.13	2	6.55.12,62	3,563	
214	H. C. 13675.....	Mar. 6	7	-0,54		64.55	1	6.57.0,60	3,677	
215	H. C. 13707.....	12	8½	-0,43		67.5	1	6.57.15,63	3,618	
216	H. C. 13708.....	13	9	-0,41	18,90					No. 214. The R.A. of H. C. is 30s too small.
217		15	8½	-0,38	18,86	69.41	2	6.57.18,88	3,550	
218	H. C. 13724.....	11	6¾	-0,46		61.36	1	6.58.0,10	3,770	
219	*.....	1	8½	-0,62		65.52	1	6.58.7,74	3,650	
220	45 Geminorum.....	12	6½	-0,44		73.50	1	6.59.45,79	3,445	No. 219. Observed in N.P.D. in 1849.
221	H. C. 13806.....	6	8½	-0,55	10,81					
222		15	9	-0,39	10,69	67.58	2	7.0.10,75	3,593	
223	H. C. 13804.....	4	9	-0,58		66.7	1	7.0.11,86	3,642	
224	H. C. 13856.....	1	7½	-0,64		65.39	1	7.1.23,06	3,654	
225	H. C. 13879.....	9	8½	-0,51		65.6	1	7.2.5,59	3,669	
226	H. C. 13889.....	16	7¾	-0,38		69.30	1	7.2.31,06	3,552	
227	H. C. 13910.....	15	8	-0,40		69.52	1	7.2.58,14	3,542	
228	49 Geminorum.....	6	7½	-0,57		64.0	1	7.3.35,68	3,698	
229	H. C. 13931.....	12	8½	-0,47		61.58	1	7.3.44,37	3,755	
230	51 Geminorum.....	9	6	-0,51		73.35	1	7.4.45,50	3,449	
231	H. C. 13987.....	16	9	-0,40		61.18	1	7.5.14,43	3,773	
232	52 Geminorum.....	7	7	-0,56		64.52	1	7.5.31,35	3,673	
233	53 Geminorum.....	6	6	-0,59		61.51	1	7.6.34,82	3,756	
234	H. C. 14053.....	12	7.8	-0,47		69.54	1	7.6.52,50	3,539	
235	H. C. 14075.....	9	8	-0,54		65.12	1	7.7.40,12	3,662	
236	H. C. 14108.....	7	8	-0,57		68.59	1	7.8.25,49	3,562	
237	H. C. 14153.....	12	9	-0,50		62.44	1	7.9.56,31	3,728	
238	H. C. 14167.....	15	7½	-0,44		62.54	1	7.10.13,39	3,723	
239	δ Geminorum. <i>nf</i> ...	Jan. 26		-0,92	9,72					
240		Feb. 22		-0,76	9,73	67.45	3	7.11.9,67	3,596	
241		Dec. 20		-3,81	9,57					
242	H. C. 14206.....	Mar. 7	7.8	-0,58	13,62	70.12	2	7.11.13,67	3,529	
243		13	7½	-0,48	13,71					
244	H. C. 14224.....	16	7	-0,43		74.35	1	7.11.34,22	3,422	
245	H. C. 14304.....	13	10	-0,49		66.54	1	7.14.7,72	3,611	
246	A Geminorum.....	7	6	-0,60		64.40	1	7.14.19,71	3,671	
247	58 Geminorum.....	Feb. 20		-0,80	27,15					
248		Mar. 1	6¾	-0,69	27,13	66.46	3	7.14.27,14	3,614	
249		4	8	-0,65	27,14					
250	*.....	16	8	-0,44		74.24	1	7.14.59,31	3,425	
251	H. C. 14369.....	15	7	-0,46		74.12	1	7.15.53,85	3,428	
252	H. C. 14383.....	11	7¾	-0,53		70.42	1	7.16.23,61	3,513	No. 250. This is Bessel z. 276, 7h. 13m. 29s. The R.A. agrees with that of H. C. 14336; the N.P.D. was determined by an Equatorial observation taken Dec. 12, 1835. The N.P.D. of H. C. appears to apply to a brighter star preceding by 31s, observed with the Circle March 13.
253	H. C. 14407.....	13	7½	-0,50		71.33	1	7.17.11,20	3,492	
254	61 Geminorum.....	16	6¾	-0,46		69.27	1	7.18.5,71	3,543	
255	H. C. 14431.....	15	8	-0,48		62.24	1	7.18.31,02	3,729	
256	*.....	1		-0,71	1,65					No. 256. Observed for H. C. 14509. See the observations of 1849, p. 101.
257		13	9	-0,52	1,58	65.54	2	7.20.1,62	3,633	
258	H. C. 14550.....	16	7¾	-0,48		68.54	1	7.21.22,48	3,554	
259	H. C. 14554.....	Feb. 20		-0,82		66.44	1	7.21.36,00	3,609	
260	CASTOR.....					57.47	23	7.25.1,88	3,842	
261	H. C. 14792.....	Mar. 13	9	-0,55		73.36	1	7.27.55,81	3,485	
262	PROCYON.....					84.24	25	7.31.26,91	3,146	
263	κ Geminorum.....	Feb. 22		-0,85		65.15	1	7.35.23,19	3,634	
264	POLLUX.....					61.37	25	7.36.7,81	3,683	
265	79 Geminorum.....	20		-0,86	20,78					
266		Mar. 4		-0,72	20,77	69.20	2	7.36.20,78	3,531	
267	H. C. 15132.....	16	8½	-0,55		73.56	1	7.39.2,12	3,420	
268	H. C. 15159.....	15	8¾	-0,57		68.50	1	7.39.55,29	3,540	
269	H. C. 15243.....	16	9	-0,57		67.23	1	7.42.7,54	3,573	
270	B.A.C. 2605.....	15	6¾	-0,59		70.18	1	7.43.12,99	3,502	
271	84 Geminorum.....	4		-0,76		67.17	1	7.44.6,12	3,574	
272	φ Geminorum.....	Jan. 26		-0,95		62.51	1	7.44.18,63	3,686	
273	H. C. 15394.....	Mar. 15	8	-0,60		70.21	1	7.46.9,29	3,498	
274	H. C. 15482.....	15	9	-0,61		71.30	1	7.48.52,36	3,468	
275	5 Cancri.....	4		-0,77		73.8	1	7.52.57,03	3,428	
276	H. C. 15678.....	13	8	-0,66		73.40	1	7.54.5,77	+3,415	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
277	H. C. 15673	Mar. 12	8	-0.69		63. 19	1	7. 54. 11.24	+ 3,661	
278	B.A.C. 2683.....	Feb. 20		-0.91	4,76					
279	-----	Mar. 4		-0.80	4,74	70. 44	2	7. 56. 4.75	3,479	
280	H. C. 15759	13	8 $\frac{1}{4}$	-0.67		71. 57	1	7. 56. 45.33	3,451	
281	μ^1 Cancr.....	15	7	-0.65		66. 56	1	7. 57. 24.74	3,567	
282	H. C. 15880	12	8 $\frac{1}{2}$	-0.70		69. 48	1	7. 59. 55.96	3,497	
283	12 Cancr.....	15	7	-0.66		75. 56	1	8. 0. 19.22	3,361	
284	H. C. 15965	12	9	-0.71		66. 5	1	8. 2. 35.06	3,581	
285	Bessel VIII. 58.....	16	7 $\frac{1}{4}$	-0.66		76. 7	1	8. 3. 28.31	3,354	
286	H. C. 16033.....	25	9.10	-0.52		64. 51	1	8. 4. 37.25	3,608	
287	H. C. 16066.....	12	8.9	-0.72		69. 52	1	8. 5. 21.21	3,489	
288	H. C. 16081.....	11	7 $\frac{3}{4}$	-0.74		68. 51	1	8. 5. 41.60	3,512	
289	H. C. 16099	6	8 $\frac{1}{2}$	-0.80		68. 28	1	8. 6. 8.75	3,520	
290	H. C. 16172	16	8 $\frac{3}{4}$	-0.68		68. 22	1	8. 8. 28.41	3,520	
291	Bessel VIII. 221....	25	9	-0.55		75. 59	1	8. 9. 0.18	3,353	
292	H. C. 16194	6	9	-0.81		68. 22	1	8. 9. 5.83	3,519	
293	H. C. 16283	16	8	-0.69		69. 41	1	8. 11. 18.71	3,487	
294	H. C. 16327	6	9 $\frac{1}{2}$	-0.82	37,46					
295	-----	11	9 $\frac{1}{2}$	-0.76	37,47	71. 41	3	8. 12. 37.50	3,441	
296	-----	25	9	-0.55	37,56					
297	Bessel VIII. 334....	15	8 $\frac{1}{2}$	-0.72		76. 43	1	8. 13. 10.52	3,334	
298	H. C. 16379	16	9	-0.70		75. 47	1	8. 14. 6.84	3,353	
299	H. C. 16447	25	8	-0.57		65. 34	1	8. 16. 1.26	3,574	
300	H. C. 16452	15	8	-0.72		69. 23	1	8. 16. 7.21	3,487	No. 300. Too bright for H. C. 16451.
301	H. C. 16496	16	8 $\frac{1}{2}$	-0.71		69. 19	1	8. 17. 17.32	3,487	
302	H. C. 16565	25	9.10	-0.58		68. 3	1	8. 18. 47.77	3,514	
303	29 Cancr.....	16		-0.73		75. 18	1	8. 20. 14.84	3,358	
304	H. C. 16677	15	10	-0.75		68. 51	1	8. 22. 13.78	3,491	No. 303. This is Bessel VIII. 529, the declination of which is 2' too great.
305	Bessel VIII. 583....	25	9.10	-0.61		75. 4	1	8. 22. 25.79	3,360	
306	H. C. 16845	25	9	-0.62		69. 9	1	8. 27. 3.12	3,479	
307	H. C. 16961	6	8	-0.88		65. 47	1	8. 29. 55.52	3,548	
308	H. C. 17012	25	8.9	-0.64		72. 0	1	8. 31. 0.81	3,414	
309	Bessel VIII. 936....	28	9	-0.62		75. 50	1	8. 35. 33.94	3,333	
310	Bessel VIII. 941....	25	8.9	-0.66		75. 43	1	8. 35. 46.54	3,335	
311	δ Cancr.....	Apr. 20		-0.24		71. 18	1	8. 36. 9.40	3,422	
312	ϵ HYDR.....					83. 2	19	8. 38. 49.81	3,189	
313	H. C. 17288.....	Mar. 28	8	-0.63		74. 7	1	8. 38. 55.12	3,363	
314	54 Cancr.....	28	7 $\frac{1}{2}$	-0.65		74. 6	1	8. 42. 39.92	3,360	
315	Bessel VIII. 1112...	25	10.11	-0.70		76. 49	1	8. 42. 42.60	3,308	
316	H. C. 17441	16	8	-0.82		77. 19	1	8. 43. 13.73	3,298	
317	H. C. 17513	28	8.9	-0.65		67. 8	1	8. 45. 20.94	3,494	
318	H. C. 17565	25	8	-0.71		74. 40	1	8. 46. 29.30	3,345	
319	Bessel VIII. 1264...	28	8.9	-0.68		77. 12	1	8. 48. 50.53	3,296	
320	α Cancr.....	Apr. 20		-0.33		77. 34	1	8. 50. 16.89	3,288	
321	Bessel VIII. 1344 ..	Mar. 28	9.10	-0.69		75. 34	1	8. 51. 55.13	3,322	
322	H. C. 17847	13	9	-0.88		68. 51	1	8. 54. 59.57	3,444	
323	Bessel VIII. 1441 ..	28	9	-0.71		77. 11	1	8. 56. 17.40	3,289	No. 322. The R.A. is nearly 1" less than that of H. C. See the observation, which appears faulty.
324	H. C. 17999	28	8	-0.72		74. 41	1	8. 59. 50.35	3,330	
325	B.A.C. 3138	15	7 $\frac{3}{4}$	-0.89		68. 6	1	9. 5. 2.60	3,442	
326	Bessel IX. 119.....	28	9	-0.76		77. 47	1	9. 6. 16.52	3,270	
327	H. C. 18247	6	9	-0.98		69. 18	1	9. 7. 33.46	3,416	
328	Bessel IX. 148.....	Apr. 10	8	-0.58		79. 0	1	9. 7. 43.73	3,248	
329	H. C. 18260	Mar. 15	8 $\frac{1}{2}$	-0.91		74. 15	1	9. 7. 53.43	3,328	
330	H. C. 18320	28	8.9	-0.76		70. 35	1	9. 9. 50.21	3,389	No. 329. This R.A., which is more than 1" less than that of H. C., has since been confirmed.
331	H. C. 18334	12	8.9	-0.94	14,06					
332	-----	15	9	-0.91	13,74	72. 8	2	9. 10. 13.90	3,862	
333	Bessel IX. 234.....	Apr. 10	9	-0.58		76. 39	1	9. 11. 35.65	3,283	
334	B.A.C. 3181.....	Mar. 13	7 $\frac{3}{4}$	-0.93		70. 17	1	9. 12. 11.03	3,391	
335	H. C. 18414	28	7.8	-0.77		72. 46	1	9. 13. 5.05	3,347	
336	H. C. 18457	Apr. 10	8	-0.60		73. 35	1	9. 14. 27.76	3,331	
337	H. C. 18481	Mar. 11	8	-0.96		69. 0	1	9. 15. 19.17	3,408	
338	H. C. 18508	28	8	-0.78		71. 13	1	9. 16. 7.72	3,369	
339	Bessel IX. 360.....	15	8	-0.95		79. 53	1	9. 17. 6.46	3,226	
340	B.A.C. 3209.....	Apr. 10	7	-0.61		72. 46	1	9. 17. 13.76	3,341	
341	Bessel IX. 398.....	Mar. 28	7 $\frac{3}{4}$	-0.80		75. 3	1	9. 18. 42.91	3,302	
342	α HYDR.....					98. 1	16	9. 20. 12.99	2,948	
343	H. C. 18677.....	28	9	-0.82		76. 24	1	9. 22. 14.44	3,276	
344	Bessel IX. 497.....	Apr. 10	9	-0.66		79. 4	1	9. 23. 10.59	3,234	
345	Bessel IX. 564.....	Mar. 28	9.10	-0.84	37,08					
346	-----	Apr. 10	9	-0.67	37,18	78. 53	2	9. 25. 37.13	+ 3,234	No. 345. The R.A. agrees with that of Bessel IX. 564, and is less than that of Bessel IX. 565 by 1".4. There are not two stars.

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
347	Bessel ix. 628	Apr. 10	9	-0.68		78.46	1	9.28.17.75	+3,234	No. 349. The precession in Weisse's Catalogue should be 3,203, instead of 2,937.
348	Bessel ix. 657	Mar. 28	10	-0.86		80.39	1	9.29.35.90	3,205	
349	Bessel ix. 692	Apr. 10	8.9	-0.70	9.20		2	9.31.9.17	3,201	
350	—	17	8	-0.61	9.13	80.51	2	9.31.9.17	3,201	
351	Bessel ix. 717	Mar. 28	9	-0.87		79.54	1	9.32.30.28	3,214	
352	Bessel ix. 749	Apr. 10	8 $\frac{3}{4}$	-0.70	2.97	75.47	2	9.34.2.86	3,272	
353	—	17	8	-0.60	2.74					
354	Bessel ix. 782	Mar. 28	8.9	-0.87		75.35	1	9.35.31.92	3,273	
355	Bessel ix. 808	Apr. 17	8.9	-0.64		82.10	1	9.36.48.43	3,178	
356	Bessel ix. 810	10	9	-0.72		78.31	1	9.36.57.11	3,229	
357	Bessel ix. 872	Mar. 28	8	-0.88	41.67		2	9.39.41.67	3,265	No. 359. The same star as H. C. 19240, the N.P.D. of which is 10' too small.
358	—	Apr. 17	7 $\frac{3}{4}$	-0.63	41.66	75.50	2	9.39.41.67	3,265	
359	H. C. 19239	10	8	-0.72		74.42	1	9.40.56.22	3,279	
360	Bessel ix. 929	17	8	-0.64		75.11	1	9.42.41.33	3,270	
361	Bessel ix. 962	Mar. 28	9.10	-0.92		82.50	1	9.44.14.12	3,165	
362	Bessel ix. 1011	Apr. 17	8.9	-0.69		82.13	1	9.46.43.91	3,171	
363	19 Leonis Minoris..	10	7	-0.78		80.22	1	9.48.28.65	3,719	
364	Bessel ix. 1074	Mar. 21		-0.98		75.41	1	9.49.46.20	3,254	
365	Bessel ix. 1117	Apr. 10	9	-0.77		75.1	1	9.51.52.13	3,260	
366	Bessel ix. 1176	Mar. 21		-0.99		75.9	1	9.54.46.89	3,255	
367	B.A.C. 3430	Apr. 10	8 $\frac{1}{4}$	-0.81		81.3	1	9.55.21.00	3,180	No. 369. The minutes of R.A. are correct. It was found by an Equatorial observation March 11, 1856, that a fainter of greater N.P.D. by 1.7 followed 59".
368	Bessel ix. 1220	Mar. 11	8	-1.06		75.41	1	9.56.20.64	3,246	
369	*	21	9	-1.00		74.50	1	9.58.31.96	3,254	
370	REGULUS					77.18	19	10.0.22.77	3,203	
371	ρ Leonis	Feb. 26		-1.10		79.55	1	10.24.54.51	3,166	
372	Bessel x. 445	Apr. 24	9.10	-0.77		79.13	1	10.25.27.00	3,173	
373	H. C. 20516	24	10	-0.78		78.12	1	10.28.45.76	3,179	
374	Bessel x. 576	24	9.10	-0.84		86.43	1	10.32.10.75	3,099	
375	Bessel x. 658	24	8.9	-0.86		85.11	1	10.36.47.66	3,111	
376	Bessel x. 718	24	8.9	-0.85		80.23	1	10.40.21.30	3,148	Nos. 372 and 373. Magnitudes estimated in mist and twilight. No. 373. Taken at only two wires.
377	H. C. 20838	Mar. 16	8	-1.16		85.46	1	10.41.38.43	3,104	
378	Bessel x. 776	Apr. 24	8 $\frac{1}{4}$	-0.87		83.37	1	10.43.5.88	3,120	
379	Bessel x. 795	18	9	-0.96		87.12	1	10.43.36.64	3,092	
380	Bessel x. 823	Mar. 16	9	-1.14		81.59	1	10.45.1.67	3,131	
381	Bessel x. 846	Apr. 18	8	-0.97	7.72		2	10.46.7.69	3,096	
382	—	24	8	-0.90	7.65	86.33	2	10.46.7.69	3,096	
383	Bessel x. 910	18	9	-0.98		86.38	1	10.50.5.58	3,094	
384	Bessel x. 964	18	8	-0.98	17.50	83.52	2	10.53.17.32	3,112	
385	—	24	9	-0.92	17.15					No. 386. No star in the place of H. C. 21227. The time 10.54.19.5 in p. 229 of Hist. Cel. (April 13, 1796) is 3" in excess.
386	H. C. 21226	18	8	-0.99	33.50	83.58	2	10.56.33.45	3,109	
387	—	24	8.9	-0.93	33.39					
388	χ Leonis	Feb. 26		-1.09		81.51	1	10.57.16.54	3,122	
389	Bessel x. 1053	Apr. 24	8.9	-0.96		86.48	1	10.58.32.60	3,090	
390	Bessel x. 1075	18	7.8	-0.98		78.59	1	10.59.23.12	3,139	
391	Bessel xi. 18	18	9.10	-1.06	22.87		2	11.2.22.81	3,065	
392	—	24	9	-1.01	22.76	91.0	2	11.2.22.81	3,065	
393	Bessel xi. 58	24	8.9	-1.01		90.22	1	11.4.35.13	3,069	
394	δ LEONIS					68.39	18	11.6.7.55	3,207	No. 396. The same star as Bessel x. 206, the R.A. of which is 1 ^m too small.
395	Bessel xi. 142	24	10	-1.03		90.15	1	11.9.4.42	3,069	
396	H. C. 21626	24	7 $\frac{3}{4}$	-1.02		86.45	1	11.13.13.96	3,086	
397	σ Leonis	Mar. 25		-1.17		83.9	1	11.13.24.12	3,103	
398	H. C. 21696	Apr. 24	8.9	-1.03		85.33	1	11.16.9.68	3,090	
399	Bessel xi. 329	24	8 $\frac{1}{4}$	-1.06		88.7	1	11.18.54.92	3,078	
400	τ Leonis	Feb. 26		-1.07	13.33					
401	—	Mar. 25		-1.19	13.39	86.19	3	11.20.13.39	3,086	
402	—	26		-1.20	13.45					
403	Bessel xi. 420	Apr. 24	10	-1.08	(31.05)					No. 403. Circumstances had both for observation of R.A. and for estimation of magnitude.
404	—	May 2	9	-1.01	30.53	88.27	1	11.24.30.53	3,076	
405	Bessel xi. 479	Apr. 25	8.9	-1.04	36.70		2	11.27.36.57	3,099	
406	—	May 2	9	-0.98	36.44	81.17	2	11.27.36.57	3,099	
407	H. C. 22044	2	8 $\frac{3}{4}$	-1.00		82.19	1	11.30.0.58	3,094	
408	H. C. 22079	Apr. 25	8.9	-1.07		83.23	1	11.31.17.72	3,090	
409	Bessel xi. 568	May 2	8 $\frac{3}{4}$	-1.08		92.29	1	11.32.37.55	3,064	
410	B.A.C. 3962	Apr. 24	8	-1.11		88.13	1	11.32.42.55	3,076	
411	Bessel xi. 592	18	8.9	-1.16		88.13	1	11.33.46.60	3,075	
412	Bessel xi. 609	25	7 $\frac{1}{4}$	-1.11	44.33		2	11.34.44.33	3,079	
413	—	May 2	7.8	-1.05	44.33	86.48	2	11.34.44.33	3,079	
414	Bessel xi. 654	Apr. 18	8.9	-1.16	19.89					
415	—	24	8 $\frac{1}{4}$	-1.12	19.80	86.49	3	11.37.19.80	+3,078	
416	—	25	8.9	-1.11	19.71					

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
417	ν Virginis.....	May 3	5.6	-1.03	9.05	82.38	2	11.38.9.00	+3.087	Nos. 419 and 420. Observed to verify observations in 1845.
418	_____	20		-0.86	8.95					
419	Bessel xi. 687.....	2	9	-1.04		83.17	1	11.39.5.74	3.085	
420	Bessel xi. 688.....	Apr. 25		-1.10		84.16	1	11.39.19.51	3.083	
421	Bessel xi. 701.....	May 2	8	-1.05		83.17	1	11.39.54.95	3.084	
422	β LEONIS.....					74.35	18	11.41.24.38	3.066	
423	B.A.C. 3996.....	Apr. 18	7.8	-1.16		83.58	1	11.41.25.90	3.082	
424	β Virginis.....	Feb. 26		-1.06	52.78					
425	_____	May 20		-0.92	53.04	87.23	2	11.42.52.91	3.075	
426	Bessel xi. 779.....	Apr. 18	8.9	-1.18	53.84					
427	_____	25	9	-1.14	53.73	86.1	4	11.44.53.77	3.077	
428	_____	May 2	9	-1.09	53.78					
429	_____	3	9	-1.08	53.73					
430	B.A.C. 4030.....	Apr. 25	7.8	-1.21	46.31					
431	_____	May 2	7 $\frac{1}{4}$	-1.16	46.26	94.18	3	11.47.46.20	3.065	
432	_____	3	7.8	-1.16	46.03					
433	Bessel xi. 867.....	Apr. 25	7.8	-1.22	27.53	93.32	2	11.50.27.57	3.067	
434	_____	May 2	8	-1.17	27.60					
435	B.A.C. 4039.....	Apr. 10	7.8	-1.22		85.41	1	11.50.32.59	3.075	
436	Bessel xi. 895.....	18	8	-1.22		91.5	1	11.51.53.75	3.070	
437	π Virginis.....	Mar. 26		-1.22	11.13					
438	_____	27		-1.22	11.07	82.33	2	11.53.11.10	3.076	
439	Bessel xi. 920.....	Apr. 25	9	-1.18	18.99					
440	_____	May 2	8 $\frac{3}{4}$	-1.13	18.95	87.18	3	11.53.18.95	3.072	
441	_____	3	8 $\frac{3}{4}$	-1.12	18.90					
442	B.A.C. 4054.....	Apr. 10	7	-1.27		90.56	1	11.53.21.01	3.070	
443	Bessel xi. 940.....	18	9	-1.20		84.57	1	11.54.44.65	3.073	
444	Bessel xi. 959.....	25	8	-1.22		91.37	1	11.55.51.19	3.070	
445	B.A.C. 4063.....	10	7.8	-1.31		94.39	1	11.55.55.06	3.069	
446	Bessel xi. 975.....	18	7 $\frac{3}{4}$	-1.22	55.90					
447	_____	May 3	8 $\frac{1}{4}$	-1.13	55.91	86.0	2	11.56.55.90	3.072	
448	B.A.C. 4069.....	Apr. 5	7.8	-1.25		85.35	1	11.57.2.29	3.072	
449	Bessel xi. 997.....	25	9	-1.26	10.07					
450	_____	May 2	9	-1.22	10.08	95.42	2	11.58.10.08	3.070	
451	Bessel xi. 998.....	Apr. 10	8.9	-1.29		91.38	1	11.58.14.01	3.070	
452	H. C. 22755.....	18	8	-1.22	52.55					
453	_____	May 3	8	-1.13	52.51	84.39	2	11.59.52.53	3.070	
454	B.A.C. 4083.....	Apr. 5	6.7	-1.27		88.33	1	12.0.19.82	3.071	
455	Bessel xi. 1032....	May 2	8 $\frac{3}{4}$	-1.19		91.15	1	12.0.38.40	3.071	
456	Bessel xi. 1033....	Apr. 10	8.9	-1.31		93.30	1	12.0.46.84	3.071	
457	10 Virginis.....	25	7	-1.21		87.16	1	12.2.0.18	3.070	
458	Bessel xii. 44.....	May 2	8 $\frac{1}{4}$	-1.24	39.00					
459	_____	3	8 $\frac{1}{4}$	-1.23	39.14	95.5	2	12.3.39.07	3.073	
460	Bessel xii. 62.....	Apr. 18	8	-1.32		96.10	1	12.4.33.20	3.073	
461	Bessel xii. 64.....	5	9.10	-1.29	42.09					
462	_____	10	10	-1.29	42.00	90.20	2	12.4.42.05	3.071	
463	Bessel xii. 93.....	25	9	-1.25	28.82					
464	_____	May 2	8 $\frac{3}{4}$	-1.21	29.00	90.45	3	12.6.28.94	3.071	
465	_____	3	8.9	-1.20	29.00					
466	*.....	Apr. 5	8	-1.31		92.10	1	(12.8.24.46)	3.072	No. 466. Observed for H. C. 22986, the R.A. of which is 2s greater. Probably the correction 10s for error of counting was incorrect, as the R.A. of H. C. was ascertained by an Equatorial observation March 11, 1856 to be right. Bessel xii. 124 agrees with H. C. 22986 in N.P.D., but has greater R.A. by 3s.
467	Bessel xii. 128....	May 3	8	-1.27		96.42	1	12.8.39.42	3.077	
468	Bessel xii. 138....	Apr. 25	8	-1.24		88.49	1	12.9.17.93	3.069	
469	B.A.C. 4135.....	May 2	7.8	-1.24		93.7	1	12.10.28.11	3.074	
470	Bessel xii. 181....	Apr. 5	8	-1.34		94.45		12.11.43.03	3.076	
471	η Virginis.....	Mar. 26		-1.28	14.11					
472	_____	27		-1.27	13.96					
473	_____	May 20		-1.08	14.14	89.50	4	12.12.14.08	3.070	
474	_____	Nov. 27		-1.30	14.10					
475	Bessel xii. 208....	Apr. 25	8 $\frac{1}{4}$	-1.29	58.47					
476	_____	May 2	8.9	-1.25	58.53	93.10	3	12.12.58.50	3.075	
477	_____	3	8.9	-1.25	58.50					
478	Bessel xii. 249....	2	8.9	-1.28		94.57	1	12.15.13.92	3.078	
479	H. C. 23179.....	Apr. 5	8.9	-1.35		94.45	1	12.15.19.25	3.078	
480	Bessel xii. 272....	25	8.9	-1.32	3.05					
481	_____	May 3	8.9	-1.28	2.98	94.49	2	12.17.3.02	3.079	
482	Bessel xii. 291....	2	8	-1.28		94.2	1	12.18.7.80	3.078	
483	Bessel xii. 295....	Apr. 5	7.8	-1.29		87.8	1	12.18.21.23	3.065	
484	Bessel xii. 308....	25	8.9	-1.33		95.14	1	12.19.15.52	3.081	
485	B.A.C. 4220.....	25	7 $\frac{1}{4}$	-1.32		93.14	1	12.23.8.63	+3.078	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
486	β Corvi.....					112.34	12	12.26.31,02	+ 3,131	No. 487. This is H. C. 23584. There is no star in the place of H. C. 23583.
487	Bessel xii. 490....	Apr. 25	7.8	-1,32		91.29	1	12.29.23,40	3,075	
488	γ Virginis.....	May 20		-1,19	3,76					
489	—	21		-1,19	3,69	90.38	3	12.34.3,73	3,073	
490	—	July 15		-0,66	3,74					
491	Bessel xii. 569....	Apr. 25		-1,34		91.56	1	12.34.8,00	3,077	
492	δ Virginis.....	24		-1,33	3,01					
493	—	Nov. 27		-1,09	3,04	85.47	2	12.48.3,03	3,050	
494	Bessel xii. 845....	May 3	9	-1,45		100.4	1	12.49.8,62	3,121	
495	46 Virginis.....	3	6	-1,38		92.34	1	12.52.52,78	3,084	
496	Bessel xii. 953....	3	9 $\frac{1}{4}$	-1,39		93.12	1	12.55.16,78	3,088	
497	Bessel xii. 994....	3	9	-1,50		101.59	1	12.57.42,15	3,141	
498	ϵ Virginis.....	3	6	-1,48		99.56	1	13.0.2,75	3,131	
499	Bessel xii. 1047...	Apr. 5		-1,27		77.0	1	13.0.36,28	2,990	
500	θ Virginis.....	Mar. 27		-1,30	11,27					
501	—	28		-1,32	11,33					
502	—	May 21		-1,34	11,35	94.44	3	13.2.11,32	3,100	
503	Bessel xiii. 37....	3	9	-1,48		98.47	1	13.3.28,66	3,127	
504	Bessel xiii. 92....	3	9	-1,44		95.1	1	13.6.12,98	3,104	
505	H. C. 24624.....	Apr. 24	8.9	-1,45	53,59	94.47	2	13.8.53,66	3,104	
506	—	May 3	8 $\frac{1}{4}$	-1,45	53,73					
507	58 Virginis.....	11		-1,48		99.45	1	13.9.36,06	3,139	
508	Bessel xiii. 193....	Apr. 24	8.9	-1,69	42,26	101.42	2	13.11.42,42	3,156	
509	—	May 3	8.9	-1,54	42,57					
510	B.A.C. 4471.....	Apr. 24	8	-1,70	12,57	101.47	2	13.14.12,74	3,159	
511	—	May 3	7.8	-1,54	12,90					
512	SPICA.....					100.23	27	13.17.17,79	3,149	
513	Bessel xiii. 321...	Apr. 24	10	-1,46	0,17	94.11	2	13.20.0,14	3,104	No. 513. Estimation of magnitude uncertain.
514	—	May 3	9	-1,47	0,10					
515	Bessel xiii. 363...	3	9	-1,59		103.48	1	13.22.26,05	3,186	
516	Bessel xiii. 427...	3	7 $\frac{3}{4}$	-1,52		97.40	1	13.25.35,71	3,136	
517	ζ Virginis.....	Apr. 24		-1,43	3,21	89.50	2	13.27.3,24	3,069	
518	—	25		-1,43	3,27					
519	Bessel xiii. 490...	May 3	9	-1,61		104.27	1	13.28.42,96	3,201	
520	81 Virginis.....	Mar. 28		-1,31		97.6	1	13.29.44,10	3,134	
521	84 Virginis.....	28		-1,21		85.42	1	13.35.31,65	3,030	
522	Bessel xiii. 674...	May 9	9	-1,61	22,25	102.9	2	13.39.22,12	3,192	
523	—	29	9	-1,57	22,00					
524	Bessel xiii. 750...	9	8	-1,62	35,17	102.16	2	13.43.35,11	3,198	
525	—	29	7	-1,59	35,04					
526	Bessel xiii. 801...	28	9 $\frac{1}{2}$	-1,62	2,41	103.29	2	13.47.2,21	3,215	
527	—	29	10	-1,62	2,02					
528	B.A.C. 4647.....	9	7 $\frac{3}{4}$	-1,56		97.19	1	13.47.6,50	3,148	
529	Bessel xiii. 870...	29	8 $\frac{1}{4}$	-1,54		96.8	1	13.50.31,56	3,137	
530	Bessel xiii. 878...	28	7	-1,55		96.11	1	13.51.7,87	3,138	
531	B.A.C. 4666.....	9	7 $\frac{3}{4}$	-1,58		97.26	1	13.52.10,76	3,153	
532	Bessel xiii. 973...	9	9	-1,65		102.2	1	13.55.57,94	3,209	
533	Bessel xiii. 1001...	June 4	9	-1,66		105.18	1	13.57.0,31	3,249	
534	95 Virginis.....	May 9	7	-1,61		98.36	1	13.58.47,31	3,171	
535	Bessel xiii. 1070...	22	8	-1,66		101.51	1	14.0.21,47	3,211	
536	Bessel xiii. 1089...	9	9	-1,79		97.17	1	14.1.8,83	3,157	
537	H. C. 25979.....	29	8	-1,72		106.19	1	14.3.1,82	3,271	
538	97 Virginis.....	June 4	9	-1,61		99.12	1	14.4.34,15	3,183	
539	κ Virginis.....	Mar. 28		-1,25	54,21	99.34	2	14.4.54,20	3,188	
540	—	May 22		-1,63	54,19					
541	H. C. 26054.....	29	8	-1,74		106.46	1	14.5.57,79	3,281	
542	ARCTURUS.....					70.2	28	14.8.49,29	2,733	
543	λ Virginis.....	Mar. 28		-1,29	0,14	102.41	2	14.11.0,12	3,233	
544	—	May 22		-1,69	0,10					
545	H. C. 26210.....	29	8	-1,80	31,07	108.39	2	14.12.31,14	3,317	
546	—	June 4	8	-1,78	31,20					
547	Bessel xiv. 259....	7	8	-1,67		101.22	1	14.14.41,19	3,220	
548	B.A.C. 4772.....	4	7	-1,68	37,51	100.59	2	14.16.37,56	3,216	
549	—	7	6.7	-1,65	37,62					
550	B.A.C. 4787.....	7	7 $\frac{1}{2}$	-1,71		102.41	1	14.19.37,66	3,243	
551	H. C. 26410.....	May 28	8 $\frac{1}{2}$	-1,79		106.17	1	14.20.25,57	3,295	
552	H. C. 26504.....	28	8	-1,81		107.13	1	14.24.2,80	3,314	No. 552. The R.A. of H. C. is nearly 1' less.
553	H. C. 26541.....	29	8	-1,85		108.51	1	14.25.46,01	3,342	
554	Bessel xiv. 498....	24	9	-1,73	18,28	101.5	2	14.27.18,20	+ 3,228	
555	—	June 4	9	-1,72	18,12					

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	°		h. m. s.	s.	
556	Bessel xiv. 512	June 7	10	-1.75		103.22	1	14.28.8.41	+3,262	No. 556. Too much clouded for estimation of Magnitude.
557	Bessel xiv. 548	May 29	8½	-1.79		104.18	1	14.29.58.62	3,278	
558	Bessel xiv. 593	June 4	7.8	-1.78		103.24	1	14.32.20.07	3,267	
559	Bessel xiv. 596	7	8½	-1.79		104.40	1	14.32.39.68	3,287	
560	Bessel xiv. 607	May 24	7.8	-1.78		103.17	1	14.33.7.61	3,266	
561	ζ Bootis.....	June 8		-1.51		75.38	1	14.33.59.37	2,857	No. 560. Taken only at two wires.
562	H. C. 26746.....	May 29	8½	-1.90		110.33	1	14.34.4.85	3,383	
563	Bessel xiv. 697	June 7	9½	-1.76		101.43	1	14.37.36.02	3,247	
564	ε Bootis.....					62.17	10	14.38.26.20	2,622	
565	α² Libræ.....					105.25	9	14.42.35.26	3,306	
566	ξ¹ Libræ.....	4	6.7	-1.79		101.17	1	14.46.14.56	3,248	No. 576. Two stars were not noticed. This appears to be the same as H. C. 27861.
567	17 Libræ.....	8	6.7	-1.79		100.33	1	14.50.6.14	3,239	
568	Bessel xiv. 972	4	10	-1.87		105.11	1	14.51.29.08	3,317	
569	Bessel xiv. 1023...	May 28	8	-1.85		104.27	1	14.54.28.73	3,308	
570	H. C. 27717.....	28	8½	-1.92		106.57	1	15.5.43.71	3,366	
571	Bessel xv. 122.....	June 8	7¼	-1.90	26.08	104.8	2	15.7.26.09	3,316	
572	-----	15		-1.89	26.10					
573	Bessel xv. 132.....	1		-1.84	58.23					
574	-----	3		-1.84	58.14	100.2	2	15.7.58.19	3,244	
575	Bessel xv. 160	3		-1.84		99.57	1	15.9.24.78	3,243	
576	H. C. 27860.....	15	8	-2.07		113.43	1	15.10.22.11	3,504	
577	Bessel xv. 265.....	15	7½	-1.91	10.39					
578	-----	21	8	-1.90	10.36	103.49	2	15.15.10.38	3,318	
579	H. C. 28062.....	8	7¾	-2.05		111.24	1	15.16.40.69	3,467	
580	Bessel xv. 336.....	15	8¼	-1.92		103.28	1	15.18.15.35	3,314	
581	Bessel xv. 368	3	10	-1.91		103.22	1	15.20.9.79	3,314	
582	H. C. 28212.....	15	6.7	-2.04		110.13	1	15.21.56.68	3,451	
583	H. C. 28247.....	3	8	-2.03		110.7	1	15.23.16.81	3,450	
584	H. C. 28345.....	15	7	-1.99		106.38	1	15.26.30.37	3,384	
585	γ Libræ.....	21		-1.94		104.17	1	15.27.8.68	3,338	
586	α Coronæ.....					62.47	12	15.28.20.33	2,538	
587	Bessel xv. 587	7	8	-1.94		103.25	1	15.31.6.69	3,325	
588	42 Libræ.....	3	4.5	-2.11	25.46					No. 597. The companion was considered to be of Mag. 7.
589	-----	15	6½	-2.13	25.42	113.20	2	15.31.25.44	3,530	
590	η Libræ.....	21		-1.98		105.11	1	15.35.38.68	3,364	
591	α Serpentis.....					83.6	18	15.36.52.98	2,951	
592	H. C. 28813.....	21	8	-2.14		112.10	1	15.42.16.03	3,520	
593	H. C. 28966.....	21	8.9	-2.17		112.45	1	15.47.54.61	3,541	
594	H. C. 29130.....	13	9	-2.10		109.2	1	15.53.33.56	3,463	
595	β¹ Scorpii.....	Apr. 27		-1.61	43.27					
596	-----	June 13	3.4	-2.12	43.35	109.23	3	15.56.43.33	3,478	
597	-----	15	4.5	-2.12	43.37					
598	H. C. 29372.....	15	8.9	-2.13		109.3	1	16.0.38.62	3,471	
599	ν Scorpii.....	22		-2.16		109.4	1	16.3.17.18	3,474	
600	B.A.C. 5408.....	13	8	-2.12		108.9	1	16.6.0.19	3,456	
601	δ Ophiuchi.....					93.18	8	16.6.29.38	3,138	
602	χ Ophiuchi.....	July 1		-2.15		108.7	1	16.18.20.14	3,466	No. 606. This is Argelander Z. 211, No. 38. The N.P.D. of H. C. is 5' too great.
603	Antares.....					116.6	12	16.20.13.11	3,665	
604	*.....	1	9	-1.84		60.32	1	16.27.22.93	2,386	
605	*.....	1	7.8	-1.86		60.51	1	16.31.39.46	2,380	
606	H. C. 30381.....	June 22		-2.24		110.24	1	16.34.46.05	3,534	
607	25 Scorpii.....	July 1	7.8	-2.36		115.15	1	16.37.40.66	3,661	
608	H. C. 30609.....	1	8	-2.40		116.37	1	16.42.34.28	3,703	
609	B.A.C. 5741.....	5	7.8	-2.39		115.16	1	16.56.9.58	3,677	
610	η Ophiuchi.....	Mar. 5		+0.10	46.94					
611	-----	June 22		-2.18	46.87	105.32	3	17.1.46.89	3,430	
612	-----	Sept. 12		-1.47	46.85					
613	α Herculis.....					75.26	3	17.7.48.68	2,732	
614	ν Serpentis.....	Mar. 5		+0.16		102.41	1	17.12.23.58	3,365	
615	H. C. 31497.....	June 8	10	-2.20		112.46	1	17.12.27.12	3,620	
616	θ Ophiuchi.....	22		-2.35	48.38					No. 609. It is supposed that the R.A. of B.A.C. is 1m. too small. The star is Argelander Z. 304, No. 100, the preceding star noticed being No. 99 of the same zone. It was observed with Mars in 1843.
617	-----	Sept. 12		-1.66	48.23	114.51	2	17.12.48.30	3,677	
618	H. C. 31646.....	June 8	9	-2.12		108.8	1	17.16.34.64	3,501	
619	B.A.C. 5896.....	8	8	-2.24		115.23	1	17.19.23.56	3,695	
620	H. C. 31831.....	July 3	8	-2.30		107.15	1	17.22.14.39	3,480	
621	H. C. 31916.....	June 20		-2.24		108.14	1	17.24.40.22	3,506	
622	H. C. 31955.....	20	8½	-2.24		108.12	1	17.25.47.32	3,505	
623	α Ophiuchi.....					79.20	13	17.27.58.44	2,779	
624	4 Sagittarii.....	24		-2.37		113.48	1	17.50.38.17	+3,660	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
625	H. C. 33089	July 4	7	-2,34		107. 2	1	17. 55. 55,26	+ 3,480	
626	B.A.C. 6141	4	6.7	-2,46		114. 0	1	18. 0. 7,43	3,666	
627	μ^1 SAGITTARI					111. 6	14	18. 4. 47,62	3,587	
628	H. C. 33651	4	8	-2,44		112. 49	1	18. 10. 14,33	3,633	
629	H. C. 33806	4	7	-2,51		116. 14	1	18. 14. 13,76	3,728	
630	H. C. 33974	Sept. 7	8 $\frac{1}{2}$	-2,00		107. 44	1	18. 17. 55,34	3,497	
631	λ Sagittarii	13		-2,00		115. 30	1	18. 18. 42,80	3,706	
632	B.A.C. 6273	July 4	6	-2,49		115. 21	1	18. 20. 6,85	+ 3,702	
633	δ URSAE MINORIS ..					3. 24	1	18. 20. 43,52	-19,296	
634	H. C. 34183	Sept. 7	7.8	-2,04		109. 0	1	18. 22. 31,14	+ 3,529	
635	24 Ursae Minoris...	Aug. 16		-9,51		3. 2	1	18. 26. 15,25	-22,053	
636	H. C. 34339	July 4	7	-2,35	26,03					No. 636. The R.A. agrees well enough with the mean of those of H. C. 34339 and 34341, which are the same star.
637	—	Sept. 7	8	-2,03	26,00	107. 6	2	18. 26. 26,02	+ 3,479	
638	H. C. 34433	2	8	-2,15		109. 33	1	18. 28. 36,56	3,542	
639	B.A.C. 6386	Aug. 30	8 $\frac{1}{2}$	-2,25		110. 26	1	18. 38. 58,21	3,562	
640	H. C. 54860	Sept. 13	7 $\frac{1}{4}$	-2,02		109. 22	1	18. 39. 23,47	3,534	
641	B.A.C. 6400	Aug. 9	8	-2,52		113. 1	1	18. 41. 7,75	3,630	No. 641. The R.A. is about 2° less than that of B.A.C., but agrees with the R.A. given by Argelander Z. 220, Nos. 154 and 155.
642	β LYRAE					56. 48	12	18. 44. 32,57	2,213	
643	H. C. 35311	9	9	-2,60		116. 23	1	18. 49. 46,44	3,718	
644	H. C. 35459	9	8 $\frac{3}{4}$	-2,46		107. 33	1	18. 53. 8,60	3,482	
645	H. C. 35552	30	9 $\frac{1}{2}$	-2,28		107. 59	1	18. 55. 25,19	3,492	
646	σ Sagittarii	June 24		-2,26		111. 57	1	18. 55. 41,72	3,594	
647	ζ AQUILAE					76. 21	8	18. 58. 31,04	2,755	
648	π Sagittarii	24		-2,24		111. 15	1	19. 0. 50,56	3,573	
649	H. C. 35932	Aug. 9	9	-2,57	26,79					
650	—	30	10	-2,39	26,65	113. 17	2	19. 3. 26,72	3,624	
651	B.A.C. 6565	July 11		-2,56		117. 7	1	19. 4. 37,84	3,728	
652	H. C. 36128	Aug. 9	8 $\frac{3}{4}$	-2,51		108. 55	1	19. 7. 23,96	3,509	
653	δ Sagittarii	Sept. 25	7.8	-1,95		109. 13	1	19. 8. 51,33	3,516	
654	B.A.C. 6587	July 11	7 $\frac{1}{4}$	-2,42		109. 8	1	19. 9. 24,44	3,513	
655	H. C. 36591	Aug. 16	9.10	-2,54	11,23					
656	—	Sept. 25	10.11	-2,02	11,22	111. 50	2	19. 17. 11,23	3,576	
657	B.A.C. 6666	Aug. 16	8.9	-2,64		117. 17	1	19. 20. 35,28	3,718	No. 656. Fog towards the horizon affected the estimation of magnitude.
658	H. C. 36814	9	8 $\frac{3}{4}$	-2,60	6,21	114. 24	2	19. 22. 6,14	3,639	
659	—	Sept. 25	11	-2,07	6,07					No. 659. See No. 656.
660	H. C. 36961	Aug. 9	8.9	-2,51		106. 36	1	19. 25. 21,97	3,442	
661	H. C. 37238	9	8.9	-2,70		118. 2	1	19. 31. 30,96	3,727	
662	H. C. 37481	9	8.9	-2,70		117. 38	1	19. 37. 4,16	3,709	
663	γ AQUILAE					79. 45	22	19. 39. 7,72	2,855	
664	α AQUILAE					81. 31	39	19. 43. 27,85	2,929	
665	β AQUILAE					83. 58	28	19. 47. 56,70	2,950	
666	H. C. 38104	Sept. 2	8 $\frac{3}{4}$	-2,42	58,65	106. 18	2	19. 51. 58,60	3,416	
667	—	25	8.9	-2,11	58,54					
668	Bessel XIX. 1323...	16	8	-2,24		105. 9	1	19. 52. 52,01	3,390	
669	H. C. 38192	2	9 $\frac{1}{4}$	-2,42		106. 17	1	19. 54. 1,88	3,414	
670	B.A.C. 6889	16	8	-2,33		111. 44		19. 56. 8,14	3,525	
671	Bessel XIX. 1418...	13	9.10	-2,29		105. 2	1	19. 56. 11,03	3,385	
672	H. C. 38334	25	9	-2,13		106. 10	1	19. 57. 16,29	3,409	
673	B.A.C. 6914	2	8.9	-2,50	47,14	111. 1	2	20. 0. 47,13	3,515	
674	—	13	8 $\frac{1}{4}$	-2,38	47,12					
675	H. C. 38705	13	8.9	-2,35		107. 7	1	20. 5. 26,24	3,422	
676	H. C. 38740	2	9.10	-2,50	2,14					
677	—	Oct. 1		-2,11	2,21	109. 39	3	20. 6. 2,14	3,478	
678	—	12	8 $\frac{3}{4}$	-1,92	2,08					
679	H. C. 38782	Sept. 4	8.9	-2,54		113. 58	1	20. 7. 16,54	3,576	
680	α^2 CAPRICORN					103. 0	15	20. 9. 43,69	3,335	
681	H. C. 39116	4	8 $\frac{1}{4}$	-2,49	31,58					
682	—	25	8 $\frac{1}{4}$	-2,23	31,58					
683	—	Oct. 12	8.9	-1,95	31,65	108. 49	4	20. 14. 31,55	3,450	
684	—	21	8 $\frac{1}{4}$	-1,79	31,39					
685	Bessel XX. 445	Sept. 2	7.8	-2,47	54,77					
686	—	4	7.8	-2,45	54,77	104. 21	3	20. 17. 54,75	3,353	
687	—	Oct. 21	8 $\frac{1}{4}$	-1,78	54,72					
688	B.A.C. 7040	12		-2,03		114. 28	1	20. 19. 50,34	3,569	
689	B.A.C. 7069	Sept. 2	9	-2,58	26,28	112. 39	2	20. 23. 26,27	3,523	No. 688. H. C. 39352 appears to be the same star with an error of 30° in excess in R.A.
690	—	4	8 $\frac{1}{4}$	-2,56	26,26					
691	H. C. 39518	Oct. 12	10	-1,96	24,62	104. 13	2	20. 24. 24,65	3,344	No. 689. The north-preceding of a double star. The other, which is B.A.C. 7070, was estimated at Mag. 9 $\frac{1}{4}$ and 9 $\frac{1}{2}$.
692	—	21	9	-1,81	24,67					
693	H. C. 39671	Sept. 4	9 $\frac{1}{4}$	-2,49		105. 49	1	20. 27. 53,22	+ 3,373	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
694	B.A.C. 7113.....	Sept. 2	10	-2.61	(12.47)	114.45	1	20.29.11,79	+3,561	No. 694. Mist in the South made the star too faint for accurate observation and estimation of magnitudes.
695	-----	Oct. 16	7.8	-2.00	11,79					
696	τ ² Capricorni.....	21	6½	-1.85		105.29	1	20.30.52,68	3,363	No. 697. Bessel xx. 819 was at the same time estimated at Mag. 8½.
697	Bessel xx. 823.....	Sept. 2	8½	-2.52		105.56	1	20.32.15,91	3,371	
698	Bessel xx. 900.....	6	8¾	-2.49	10,38					No. 698. The star is Argelander Z. 249, No. 79. Bessel's R.A. is 3 ^s less, his N.P.D. agreeing with Argelander's.
699	-----	Oct. 17	9	-1.94	10,31	105.43	3	20.35.10,35	3,364	
700	-----	21	8¾	-1.87	10,35					No. 702. Bessel's R.A. is 1 ^s greater.
701	*.....	16	11	-1.96		105.16	1	20.37.38,63	3,353	
702	Bessel xx. 965.....	Sept. 2	9	-2.52	48,68					
703	-----	6	9¼	-2.49	48,54	105.16	3	20.37.48,57	3,352	
704	-----	Oct. 17	10	-1.95	48,49					
705	Bessel xx. 1051....	17	9½	-1.96		105.27	1	20.40.46,19	3,353	
706	Bessel xx. 1106....	Sept. 6	8	-2.50		104.29	1	20.43.0,12	3,332	
707	Bessel xx. 1203....	6	9	-2.50		103.50	1	20.47.6,50	3,316	
708	B.A.C. 7263.....	6	7	-2.53	16,47					
709	-----	Oct. 16	7¾	-2.03	16,41	106.36	2	20.49.16,44	3,365	
710	H. C. 40616.....	Sept. 6	8	-2.61	33,11					
711	-----	Oct. 16	9	-2.09	32,80	113.28	2	20.52.32,96	3,494	
712	Bessel xx. 1419....	Sept. 6	8	-2.52	22,80					
713	-----	Oct. 16	8	-2.03	22,70	103.26	2	20.55.22,75	3,301	
714	H. C. 40866.....	Sept. 6	8.9	-2.55	51,71					
715	-----	Oct. 16	8	-2.07	51,77	106.20	2	20.58.51,74	3,349	
716	Bessel xx. 1541....	Aug. 9	9.10	-2.52		104.26	1	21.0.17,58	3,314	
717	ν Aquarii.....	Nov. 11		-1.65		101.59	1	21.1.25,06	3,270	
718	H. C. 40994.....	Oct. 16	8	-2.08	47,93					
719	-----	26	7¼	-1.92	47,74	106.18	2	21.1.47,84	3,345	
720	B.A.C. 7352.....	Aug. 9	7¾	-2.52		105.5	1	21.3.23,78	3,322	
721	H. C. 41070.....	Oct. 26	7½	-1.92		105.10	1	21.3.48,32	3,323	
722	Bessel xxi. 90.....	Aug. 23	9¼	-2.57		103.26	1	21.5.26,27	3,291	
723	Bessel xxi. 142....	9	9.10	-2.51	16,96					
724	-----	Oct. 16	10	-2.08	16,91					
725	-----	26	10	-1.93	16,76	102.42	4	21.7.16,82	3,277	
726	-----	31	9½	-1.85	16,64					
727	29 Capricorni.....	Aug. 20		-2.57	26,34	105.47	2	21.7.26,48	3,329	
728	-----	21		-2.57	26,75					No. 728. In deducing the concluded R.A., only half weight is given to this observation. See the transit.
729	H. C. 41276.....	23	9	-2.63		110.8	1	21.8.43,14	3,404	
730	Bessel xxi. 222....	9	8.9	-2.50	19,21					
731	-----	Oct. 26	8¼	-1.94	19,05	102.53	3	21.10.19,13	3,277	
732	-----	31	8	-1.86	19,12					
733	Bessel xxi. 252....	Aug. 23	8	-2.58		104.39	1	21.11.33,87	3,305	
734	Bessel xxi. 295....	9	9½	-2.50	13,19					No. 734. This is the north and brighter star and follows Bessel xxi. 296 about two-tenths of a second, as found by an Equatorial observation Nov. 3, 1855. According to Bessel the latter follows about one-tenth of a second.
735	-----	Oct. 26	8.9	-1.96	13,09	102.57	3	21.13.13,12	3,275	
736	-----	31	8½	-2.01	13,08					
737	ι Capricorni.....	Aug. 20		-2.60	53,37					
738	-----	21		-2.59	53,32	107.28	3	21.13.53,31	3,350	
739	-----	Oct. 15		-2.16	53,24					
740	H. C. 41544.....	Aug. 23		-2.57	32,41					
741	-----	Oct. 26	7¾	-1.97	32,27	102.42	3	21.15.32,33	3,269	
742	-----	Nov. 4	7¾	-1.83	32,28					
743	Bessel xxi. 378....	Aug. 9	9.10	-2.49	29,49					
744	-----	Oct. 16	9½	-2.12	29,24	101.36	2	21.16.29,37	3,250	
745	Bessel xxi. 416....	26	10	-1.99	5,76					
746	-----	31	9	-1.91	5,82	104.13	3	21.18.5,76	3,290	
747	-----	Nov. 4	10	-1.85	5,69					
748	Bessel xxi. 441....	Aug. 23	8	-2.58	10,93					
749	-----	Oct. 16	7½	-2.14	10,78	104.14	2	21.19.10,86	3,290	
750	Bessel xxi. 458....	Aug. 9	8.9	-2.50		104.21	1	21.19.48,36	3,291	
751	Bessel xxi. 495....	Oct. 26	8¾	-1.99	19,99	102.44	2	21.21.20,01	3,263	
752	-----	31	8	-1.92	20,03					
753	β Aquarii.....					96.14	24	21.23.39,63	3,168	
754	Bessel xxi. 638....	Aug. 23	10	-2.55		99.30	1	21.26.56,78	3,209	
755	Bessel xxi. 708....	29	9	-2.56		99.22	1	21.29.54,62	3,205	
756	Bessel xxi. 717....	23	9	-2.57	9,57					
757	-----	Sept. 28	8	-2.41	9,65	102.43	2	21.30.9,61	3,254	
758	*.....	Aug. 23	10	-2.57	17,21					No. 758 and 759. The N.P.D. is derived from a Circle observation Oct. 2, 1855. The star intended to be observed was H. C. 42238, which was not found, being probably the same star as H. C. 42239, with an error of 2 ^o in the N.P.D.
759	-----	Sept. 28	10	-2.42	16,89	102.45	2	21.33.17,05	3,251	
760	Bessel xxi. 902....	Aug. 23	9	-2.58	9,03					
761	-----	Oct. 31	8¼	-2.00	8,80	104.22	2	21.37.8,92	3,270	
762	δ Capricorni.....	Aug. 21		-2.57		106.48	1	21.38.45,47	3,304	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
763	H. C. 42467.....	Oct. 31	9½	-2,00		100.33	1	21.39.54,20	+3,214	
764	Bessel xxi. 988....	Aug. 23	8.9	-2,57		104.17	1	21.41.18,41	3,264	
765	Bessel xxi. 995....	29	9	-2,57		99.1	1	21.41.35,61	3,191	
766	Bessel xxi. 1023...	Sept. 28	7½	-2,44		100.44	1	21.43.3,75	3,213	
767	Bessel xxi. 1053...	Aug. 23	8	-2,55	30,10					
768	—————	Oct. 16	7½	-2,24	29,91	100.7	3	21.44.29,97	3,204	
769	—————	31	7½	-2,02	29,90					
770	B.A.C. 7620.....	Sept. 28	7	-2,45		101.2	1	21.45.34,54	3,215	
771	B.A.C. 7639.....	Aug. 23	8	-2,60	30,03					
772	—————	Oct. 5	8	-2,43	29,96	108.36	3	21.48.30,02	3,315	
773	—————	16	8	-2,29	30,06					
774	Bessel xxi. 1173..	Sept. 28	8½	-2,47	58,13	101.25	2	21.49.53,02	3,216	
775	—————	Oct. 31	9	-2,05	57,91					
776	Bessel xxi. 1227..	5	9.10	-2,41		103.39	1	21.52.24,89	3,242	
777	Bessel xxi. 1240..	16	8½	-2,28	59,82	103.44	2	21.52.59,75	3,243	
778	—————	Nov. 6	8½	-1,98	59,67					
779	Bessel xxi. 1246..	Sept. 28	8½	-2,48		102.4	1	21.53.9,71	3,221	
780	29 Aquarii. sp....	Nov. 8	8	-1,97		107.41	1	21.54.13,56	3,293	
781	α Aquarii.....					91.3	21	21.58.4,71	3,083	
782	ι Aquarii.....	Oct. 15		-2,32	20,03	104.36	2	21.53.19,97	3,247	
783	—————	16		-2,31	19,90					
784	B.A.C. 7709.....	Sept. 28	7½	-2,50	42,07	104.2	2	22.0.42,08	3,237	
785	—————	Nov. 8	8½	-1,99	42,10					
786	Bessel xxii. 49....	Sept. 2	9	-2,58	10,76	98.45	2	22.3.10,86	3,171	No. 787. Circumstances not good for judging of magnitude.
787	—————	Nov. 8	10	-2,00	10,95					
788	Bessel xxii. 91....	Oct. 5	8	-2,46		104.37	1	22.5.1,38	3,238	
789	Bessel xxii. 119...	Nov. 4	9	-2,07		96.18	1	22.6.28,75	3,141	
790	Bessel xxii. 164...	Sept. 2	8½	-2,60	20,60					
791	—————	Oct. 5	8	-2,47	20,70	104.47	3	22.8.20,66	3,236	
792	—————	7	8½	-2,45	20,69					
793	θ Aquarii.....	15		-2,34	55,03	98.32	2	22.8.54,96	3,164	
794	—————	16		-2,32	54,89					
795	Bessel xxii. 183...	Nov. 4	8½	-2,09		104.56	1	22.9.4,75	3,237	
796	Bessel xxii. 230...	Sept. 2	8.9	-2,59		102.40	1	22.11.33,56	3,203	
797	Bessel xxii. 252...	Oct. 5	9½	-2,46	38,44	95.13	2	22.12.38,55	3,126	
798	—————	Nov. 4	10	-2,10	38,66					
799	Bessel xxii. 315...	Sept. 2	9.10	-2,58	39,56	95.13	2	22.15.39,43	3,124	No. 800. Too misty a sky for estimation of magnitude.
800	—————	Nov. 8	10.11	-2,06	39,30					
801	Bessel xxii. 343...	4	7.8	-2,13		103.57	1	22.16.31,80	3,216	
802	Bessel xxii. 388...	Sept. 21	9	-2,53	8,20	103.34	2	22.18.8,15	3,209	
803	—————	28	9	-2,54	8,09					
804	Bessel xxii. 415...	2	8½	-2,59	28,68					
805	—————	Nov. 4	8½	-2,14	28,65	103.2	3	22.19.28,64	3,202	
806	—————	8	9.10	-2,08	28,58					
807	Bessel xxii. 444...	Sept. 21	9½	-2,58		103.0	1	22.20.48,11	3,200	
808	Bessel xxii. 459...	28	9	-2,54	43,68					
809	—————	Nov. 1		-2,19	43,56	102.17	3	22.21.43,65	3,192	
810	—————	4	8½	-2,15	43,72					
811	σ Aquarii.....	Aug. 22		-2,52		101.27	1	22.22.42,20	3,182	
812	Bessel xxii. 517...	Sept. 21	9	-2,58		99.3	1	22.24.32,79	3,157	
813	Bessel xxii. 672...	21	9.10	-2,59	34,19	100.22	2	22.31.34,18	3,163	
814	—————	Oct. 5	9	-2,52	34,16					
815	Bessel xxii. 694...	7	9½	-2,50		97.35	1	22.32.26,77	3,137	
816	Bessel xxii. 723...	28	8½	-2,29		100.54	1	22.34.6,11	3,165	
817	65 Aquarii.....	Sept. 21	7½	-2,60		100.53	1	22.35.7,64	3,164	
818	Bessel xxii. 756...	Oct. 5	8	-2,53		93.28	1	22.35.12,75	3,100	
819	Bessel xxii. 797...	5	7.8	-2,54	29,53	103.48	2	22.37.29,58	3,186	
820	—————	28	8	-2,31	29,64					
821	H. C. 44601.....	28	9½	-2,32	10,72	93.22	2	22.40.10,69	3,097	
822	—————	Nov. 4	9	-2,24	10,65					
823	H. C. 44661.....	Oct. 5	7½	-2,55		104.51	1	22.42.26,83	3,188	No. 823. This is Bessel xxi. 887, the R.A. of which is 30° too small.
824	Bessel xxii. 902...	28	10.11	-2,33	49,16	98.45	2	22.42.49,06	3,139	
825	—————	Nov. 4	10½	-2,25	48,95					
826	λ Aquarii.....	Aug. 22		-2,48	47,12					
827	—————	23		-2,47	47,22	98.23	3	22.44.47,17	3,134	
828	—————	Oct. 17		-2,45	47,18					
829	Bessel xxii. 961...	5	8½	-2,56	47,31	93.6	2	22.45.47,36	3,094	No. 829. The R.A. is about 1½° greater than Bessel's, agreeing better with the mean from H. C. 44765 and 44766.
830	—————	Nov. 4	8	-2,27	47,40					
831	Bessel xxii. 981...	Oct. 28	9.10	-2,35		100.10	1	22.47.4,16	+3,146	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
832	Bessel xxii. 1007..	Nov. 4	8½	-2,27		101.52	1	22.48.12,58	+3,157	
833	H. C. 44904.....	Oct. 5	7	-2,57	40,10					
834	—	28	7¼	-2,37	40,25	92.13	2	22.50.40,18	3,086	
835	Bessel xxii. 1068..	Nov. 4	8	-2,28		99.1	1	22.51.10,21	3,133	
836	Bessel xxii. 1136..	Oct. 5	8	-2,57	57,97					
837	—	28	8½	-2,38	57,86	97.46	2	22.53.57,92	3,122	
838	Bessel xxii. 1156..	Nov. 4	7¾	-2,30		102.4	1	22.54.40,64	3,151	
839	Bessel xxii. 1205..	4	8½	-2,31		96.59	1	22.56.41,03	3,115	
840	α PEGASI.....					75.36	22	22.57.17,55	2,983	
841	H. C. 45222.....	1	8	-2,35		100.29	1	22.59.52,73	3,135	
842	Bessel xxii. 1292..	Oct. 31	10	-2,37		101.30	1	23.1.16,56	3,139	
843	H. C. 45303.....	Nov. 2	9	-2,35		99.38	1	23.1.39,71	3,128	
844	Bessel xxiii. 38....	1	9	-2,39		90.23	1	23.3.9,82	3,073	
845	Bessel xxiii. 60....	Oct. 31	10.11	-2,39	6,78					
846	—	Nov. 2	9.10	-2,37	6,39	95.38	2	23.4.6,58	3,102	No. 845. Too much cloud for estimation of magnitude. Bessel's R.A. is 10 ^s too great.
847	φ Aquarii.....	Oct. 17		-2,52	33,21					
848	—	Nov. 13		-2,26	33,05	96.51	3	23.6.33,19	3,108	
849	—	14		-2,24	33,32					
850	Bessel xxiii. 158. <i>nf.</i>	2	9	-2,40		91.33	1	23.8.51,13	3,079	
851	ψ ² Aquarii.....	13		-2,26	9,38					
852	—	14		-2,24	9,63	100.26	2	23.11.9,50	3,123	
853	Bessel xxiii. 261..	2	8½	-2,40		97.16	1	23.12.52,88	3,105	
854	Bessel xxiii. 303..	1	9.10	-2,44	1,13					
855	—	2	8¾	-2,43	1,45	92.17	2	23.15.1,29	3,081	
856	Bessel xxiii. 358..	1	9	-2,45	42,90					
857	—	2	8½	-2,44	42,86	91.2	2	23.17.42,88	3,075	
858	* (Mag. 9.10).....	Oct. 26		-2,57		83.5	1	23.22.42,76	3,044	
859	H. C. 46253.....	Nov. 4	8	-2,46	2,11					No. 853. The N.P.D. and magnitude by a Circle observation, Oct. 6, 1855.
860	—	5	8¼	-2,45	2,03	93.47	2	23.29.2,07	3,083	
861	Bessel xxiii. 642..	8	8¼	-2,43		93.47	1	23.31.6,99	3,082	
862	Bessel xxiii. 678..	Oct. 30	11.12	-2,53	(49,34)					No. 862. Too much obscured by mist for accurate observation and estimation of magnitude.
863	—	Nov. 4	9	-2,49	48,93	92.12	1	23.32.48,93	3,077	
864	Bessel xxiii. 703..	5	9.10	-2,46		96.20	1	23.33.57,90	3,087	
865	λ Piscium.....	Aug. 23		-2,42		89.3	1	23.34.23,67	3,068	
866	Bessel xxiii. 723..	Oct. 26	10	-2,54		99.48	1	23.35.20,60	3,095	
867	Bessel xxiii. 748..	30	10	-2,56		88.41	1	23.36.28,81	3,067	
868	Bessel xxiii. 768..	Nov. 4	7¾	-2,52	23,67					
869	—	5	7¾	-2,52	23,69	88.44	2	23.37.23,68	3,068	
870	Bessel xxiii. 776..	Oct. 26	8.9	-2,70		76.9	1	23.37.49,44	3,039	
871	Bessel xxiii. 808..	Sept. 13	8.9	-2,64		87.57	1	23.39.39,48	3,066	
872	Bessel xxiii. 817...	Oct. 30	8	-2,56		91.36	1	23.40.1,04	3,074	
873	20 Piscium.....	Aug. 23		-2,38		93.36	1	23.40.13,97	3,078	
874	Bessel xxiii. 830...	Nov. 4	8	-2,52	30,97					
875	—	5	8½	-2,51	30,85	91.36	2	23.40.30,91	3,074	
876	Bessel xxiii. 869...	Sept. 13	8¾	-2,64	27,36					
877	—	Oct. 30	9¼	-2,59	27,40	88.52	2	23.42.27,38	3,069	
878	Bessel xxiii. 897...	Nov. 4	9	-2,51	8,19					
879	—	5	9.10	-2,50	8,24	97.27	2	23.44.8,22	3,083	
880	Bessel xxiii. 922...	Sept. 13	9.10	-2,63	9,76					
881	—	Oct. 30	9½	-2,59	9,65	90.7	3	23.45.9,73	3,071	
882	—	Nov. 8	9.10	-2,52	9,79					
883	Bessel xxiii. 956...	4	7½	-2,58	38,42					
884	—	14	7¾	-2,49	38,49	87.9	2	23.46.38,46	3,067	
885	*	Sept. 21	9	-2,79	55,22					
886	—	Oct. 26	8½	-2,74	55,02	76.14	2	23.46.55,12	3,052	
887	Bessel xxiii. 976..	30	8½	-2,62	40,58					
888	—	Nov. 8	8¼	-2,54	40,68	87.36	2	23.47.40,63	3,068	
889	H. C. 46918.....	4	8	-2,56	45,72					
890	—	14	8¼	-2,48	45,72	90.21	2	23.48.45,72	3,071	
891	Bessel xxiii. 1041..	8	8¾	-2,51		94.49	1	23.50.27,99	3,075	
892	27 Piscium.....	Sept. 21		-2,65	59,79					
893	—	Nov. 14		-2,45	59,66	94.23	3	23.50.59,69	3,075	
894	—	Dec. 12		-2,18	59,63					
895	H. C. 47030.....	Nov. 4	7¼	-2,56		92.41	1	23.51.52,48	3,073	
896	Bessel xxiii. 1088..	Oct. 29	7.8	-2,60	50,59					
897	—	30	8	-2,60	50,64	94.9	2	23.52.50,62	3,074	
898	Bessel xxiii. 1107..	Nov. 8	9¼	-2,55	46,84					
899	—	14	9¼	-2,50	46,78	90.32	2	23.53.46,81	3,071	
900	H. C. 47106.....	Sept. 21	8¾	-2,80	57,30					
901	—	Oct. 26	7.8	-2,77	57,28	76.12	2	23.53.57,29	3,062	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of Mean R.A. Jan. 1, 1850.	Approximate N.P.D. Jan. 1, 1850.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1850.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
902	Bessel XXIII. 1143.	Oct. 7	8	-2,72	5,70					
903	_____	30	7 $\frac{1}{4}$	-2,64	5,70	88.42	2	23.55.5,70	+3,070	
904	Bessel XXIII. 1163.	Oct. 29	10	-2,61		95.46	1	23.56.29,69	3,073	
905	33 Piscium.....	Sept. 21		-2,63	39,45					
906	_____	Oct. 7	7	-2,68	39,59					
907	_____	Nov. 14		-2,47	39,50	96.33	4	23.57.39,48	3,072	
908	_____	Dec. 12		-2,26	39,37					
909	Bessel XXIII. 1219.	20		-2,17		85.23	1	23.59.16,27	3,070	
910	Bessel XXIII. 1227.	Oct. 29		-2,59	42,64					
911	_____	30		-2,58	42,84	101.52	2	23.59.42,74	+3,071	No. 910. Magnitude not noted, the star being mistaken for Flora. It was identified with Bessel XXIII. 1227 by an Equatorial observation Oct. 27, 1855, and found to be of Mag. 9.

APPARENT NORTH POLAR DISTANCES

OBSERVED WITH THE

MURAL CIRCLE

IN THE YEAR 1850.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"	"	r.		o' ' "	Inch.	o	o	"	o' ' "	
Jan. 5	(a) Zenith Point.....	2. 41,4	45,0	46,8	39,8	41,6	44,7	+10,1	9,065	+ $\frac{1}{2}$	358. 42. 19,05						
	(b) ☉ N.L.....	0. 8,6	16,1	13,0	9,8	7,0	15,4		9,065	+ $\frac{1}{2}$	73. 13. 3,64	29,347	40,6	37,0	209,06	112. 21. 21,65	T.
	☉ S.L.....	3. 5,1	7,1	12,0	2,1	4,8	8,7		11,452	+ $\frac{1}{2}$	73. 45. 31,21				216,77	112. 53. 56,93	T.
	(c) ξ Tauri R.....	2. 30,3	31,0	36,9	27,2	27,8	33,9		11,452	+ $\frac{1}{2}$	135. 42. 37,39	29,376	32,4	30,9	55,52	80. 47. 45,18	T.
	ξ Tauri.....	3. 15,0	16,1	21,1	13,3	16,8	18,3		10,416	+ $\frac{1}{2}$	41. 42. 1,90				32,44	80. 47. 46,37	T.
	η Tauri R.....	1. 38,0	36,7	42,0	31,8	33,9	37,2		10,416	+ $\frac{1}{2}$	150. 8. 9,18					66. 21. 50,31	T.
	η Tauri.....	0. 41,6	43,0	47,6	39,9	40,3	47,0		9,740	+ $\frac{1}{2}$	27. 16. 28,61					66. 21. 50,00	T.
	ζ Persei R.....	3. 41,9	40,0	51,0	36,9	41,6	43,0		9,740	+ $\frac{1}{2}$	157. 55. 48,87				22,61	58. 34. 0,79	T.
	ζ Persei.....										19. 28. 49,54					58. 34. 1,10	T.
Jan. 7	(d) Zenith Point.....	0. 2,1	3,9	2,7	2,7	3,2	4,4	+11,4	10,579		66. 24. 51,11						C.
Jan. 15	(d) Zenith Point.....	4. 28,8	28,0	31,7	28,5	30,0	27,9	+12,5	1,098		66. 24. 53,90						T.
Jan. 22	Zenith Point.....	0. 11,4	14,2	12,1	10,1	12,5	12,2	+11,3	10,925		66. 24. 52,88						B.
Jan. 23	(e) ♀ S.L.....	0. 42,7	45,4	41,8	41,3	42,8	41,9	+10,7	10,901	+1	103. 25. 26,19	30,324	34,8	34,0	46,04	74. 48. 27,35	B.
	♀ S.L.....	...	...	...	...	...	...		11,025	+2	103. 25. 25,78					74. 48. 26,94	B.
	ζ Orionis.....	2. 26,3	28,0	28,1	25,9	27,2	25,2		8,067	+2	120. 38. 7,95	30,329	34,8	33,4	84,47	92. 1. 47,54	B.
Jan. 26	ζ Geminorum...	4. 27,6	25,4	29,4	23,0	26,7	22,8	+10,3	8,069	+ $\frac{1}{2}$	97. 50. 8,77	29,910	37,2	32,7	36,92	69. 13. 0,79	B.
	δ Geminorum...	1. 64,2	63,8	64,2	59,2	64,2	62,0			+4	96. 22. 4,63				34,82	67. 44. 54,55	B.
	(f) ♀ S.L.....	0. 58,0	58,8	57,2	54,3	57,6	55,5				100. 30. 57,25				40,91	71. 53. 53,26	B.
	♀ S.L.....	...	...	...	...	...	...		10,018	+1	100. 30. 56,01					71. 53. 52,02	B.
	♀ S.L.....	...	...	...	...	...	...		10,010	+2	100. 30. 55,43					71. 53. 51,44	B.
	φ Geminorum...	3. 25,0	22,5	26,3	21,3	23,7	21,3			+4	91. 28. 25,75				28,26	62. 51. 9,11	B.
Jan. 29	Zenith Point.....	4. 31,3	33,9	29,4	27,9	31,8	30,9		8,936		66. 24. 52,90						B.
Jan. 30	(g) ☉ N.L. M.....	0. 19,1	20,9	18,9	18,2	20,6	17,5		13,923		135. 58. 57,50	30,212	38,8	37,5	160,93	107. 23. 53,53	B.
	☉ S.L. M.....	2. 44,7	45,9	47,8	46,5	46,9	42,8		13,923	+ $\frac{1}{2}$	136. 31. 25,10				165,62	107. 56. 25,82	B.
	τ Tauri.....	2. 24,5	22,8	25,5	19,6	23,0	19,7				95. 57. 23,33	30,248	35,8	31,8	34,70	67. 20. 13,13	B.
	H. C. 9013.....	0. 7,0	7,9	7,5	2,1	7,3	2,8				102. 15. 5,80				44,21	73. 38. 5,11	B.
	H. C. 9168.....	1. 7,3	8,9	7,9	5,3	7,8	4,3				102. 56. 7,30				45,33	74. 19. 7,73	B.
Feb. 3	♀ S.L.....	0. 55,7	57,0	55,8	52,5	57,6	52,4			+2	131. 40. 50,61	29,891	42,6	34,7	129,90	103. 5. 15,61	B.
Feb. 6	(h) ω ² Tauri.....	4. 57,1	58,7	56,8	54,8	56,4	52,2	+8,3			98. 24. 55,98	29,024	41,8	39,5	36,13	69. 47. 46,58	B.
	(h) Bessel iv. 1312..	4. 11,7	15,0	9,8	11,4	11,4	8,4				104. 44. 11,05			38,8	45,75	76. 7. 11,27	B.
	(h) H. C. 9656.....	4. 47,0	49,2	46,8	44,7	47,9	43,5				73. 9. 46,45				6,85	44. 32. 7,77	B.
	(h) B.A.C. 1801....	4. 40,0	41,2	38,1	36,8	40,6	35,5				95. 29. 38,60			38,6	32,21	66. 52. 25,28	B.
	Bessel v. 1015....	2. 51,9	53,1	53,1	51,0	51,1	46,8				110. 42. 51,95				56,48	82. 6. 2,90	B.
	(i) H. C. 11048.....	4. 33,8	32,0	37,4	31,9	36,0	27,5				94. 44. 34,37				31,23	66. 7. 20,07	B.
Feb. 7	☉ N.L.....	4. 24,0	23,8	27,2	24,7	26,7	18,8		13,543		133. 38. 11,55	29,376	43,0	44,1	137,16	105. 2. 43,18	T.
	☉ S.L.....	1. 48,3	49,1	49,6	45,9	49,4	43,6		13,543		134. 10. 34,28				140,81	105. 35. 9,56	T.
	40 Persei.....	3. 40,0	39,9	44,6	36,4	42,1	34,9				85. 8. 40,67	29,500	40,7	40,5	19,89	56. 31. 15,03	T.
	* R. 3 ^h . 36 ^m . 28 ^s	2. 56,0	55,5	58,9	53,0	57,1	51,3				83. 52. 56,12				18,46	55. 15. 29,05	T.
	B.A.C. 2042.....	2. 51,1	49,8	53,6	47,2	48,5	44,2				94. 47. 49,85	29,570	39,7	39,6	31,82	66. 10. 36,14	T.
	H. C. 12358.....	2. 47,1	45,6	50,1	43,9	46,0	41,1		10,685		98. 17. 32,14				36,62	69. 40. 23,23	T.
	ν Geminorum...	...	...	...	...	...	...		6,017		98. 19. 9,47				36,66	69. 42. 0,60	T.
	Bessel vi. 809....	2. 59,5	59,0	62,4	58,7	59,9	54,9				133. 17. 59,90				137,14	104. 42. 31,51	T.
	H. C. 12821.....	0. 23,0	24,5	22,8	19,6	19,6	17,9				115. 55. 21,33				68,88	87. 18. 44,68	T.
	Pollux R.....	0. 59,0	60,6	59,6	57,5	59,0	56,1		11,832		222. 35. 20,70	29,593	38,4	37,4	26,15	61. 37. 6,98	T.
	Pollux.....	4. 65,0	64,3	64,6	61,2	61,0	59,2		11,832		90. 14. 24,37					61. 37. 4,99	T.
Feb. 8	(k) H. C. 8431.....	3. 53,0	53,2	55,9	50,0	53,2	46,0				130. 3. 52,95	29,598	45,9	46,9	116,70	101. 28. 4,12	T.
	(l) H. C. 9058.....	4. 18,1	16,5	21,4	15,5	19,5	13,0				75. 4. 18,52				8,84	46. 26. 41,83	T.
	(h) ξ Tauri.....	4. 62,5	64,9	62,1	60,9	61,9	56,7				97. 15. 1,50				34,66	68. 37. 50,63	T.

ONE REVOLUTION of the MICROMETER = 20",850. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

Jan. 7, 0^h. The Circle was taken from the wall, and the pivots were cleaned. At the same time the object-glass was taken out and cleaned, the Telescope was shifted on the Circle, and the Microscopes were adjusted.

Jan. 17, 13^h. The micrometer-wire was adjusted equatorially.

(a) This Zenith Point was obtained Dec. 31, 1849. (b) Bisected hurriedly, the Transit observation being taken by the same observer. (c) Disturbance of the mercury by wind. (d) Between these the eye-piece was taken out to oil the micrometer-screw and adjust the comb. (e) Steady. (f) 'A little rugged.' (g) The Limbs very faint, and the bisections doubtful. (h) Negative correction for Runs. (i) 'The north-following of two.' (k) Very faint from cloud. (l) 'Followed by two of less N.P.D.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"					Inch.	"	"		"	"	"	
Feb. 8	(a) * α . 4 ^h . 58 ^m . 52 ^s .	4.40,8	44,1	40,9	37,2	42,0	37,5	+8,3			73. 4. 40,32	29,598	45,9	46,9	6,78	44. 27. 1,57	T.		
	16 Geminorum...	2. 24,0	25,0	26,0	22,4	24,0	20,0				98. 2. 24,23	29,620	46,9	47,3	35,75	69. 25. 14,45	T.		
	H. C. 12821.....	0. 23,4	25,6	20,9	20,1	22,1	18,0				115. 55. 21,77				67,91	87. 18. 44,15	T.		
	11 Canis Majoris.	1. 56,3	58,1	58,0	54,7	58,8	51,7				132. 51. 56,80				132,43	104. 16. 23,70	T.		
	H. C. 13313.....	0. 47,0	49,8	46,9	45,6	47,1	42,4				94. 25. 46,68				30,89	65. 48. 32,04	T.		
	B.A.C. 2283.....	3. 44,7	43,5	45,7	42,2	45,4	39,6				94. 58. 44,55				31,61	66. 21. 30,63	T.		
Feb. 9	H. C. 9058.....	4. 17,4	15,0	20,1	14,0	18,3	11,4				75. 4. 17,22	29,444	43,1	42,5	8,88	46. 26. 40,57	T.		
	B.A.C. 1542.....	2. 59,7	59,2	61,0	55,8	58,6	54,1				104. 27. 58,88				45,61	75. 50. 58,96	T.		
	Bessel iv. 1312..	4. 11,3	10,9	13,5	8,2	11,8	5,8				104. 44. 11,40				46,05	76. 7. 11,92	T.		
	(b) H. C. 9656.....	4. 44,3	42,3	47,0	39,9	44,4	39,0	+2 $\frac{3}{4}$			73. 9. 45,30				6,90	44. 32. 6,67	T.		
	108 Tauri.....	0. 50,0	49,6	48,0	45,2	50,5	45,9				96. 30. 48,43				33,78	67. 53. 36,68	T.		
	Bessel v. 219....	3. 54,5	55,0	57,0	51,1	53,9	50,5				109. 33. 54,72				54,60	80. 57. 3,79	T.		
	B.A.C. 1656.....	0. 30,0	31,9	27,9	25,9	27,3	25,2	+1 $\frac{1}{2}$			110. 20. 28,22	29,453	42,2	41,7	56,21	81. 43. 38,90	T.		
	(c) * α . 5 ^h . 21 ^m . 59 ^s .	1. 56,2	56,1	57,7	52,6	57,0	51,5				95. 31. 55,72				32,53	66. 54. 42,72	T.		
	120 Tauri.....	1. 32,1	31,8	33,1	29,4	31,0	27,0	+1			100. 11. 31,20				39,05	71. 34. 24,72	T.		
	(a) B.A.C. 1801.....	4. 39,4	40,5	38,1	35,1	40,0	36,1	+ $\frac{1}{2}$			95. 29. 38,12				32,48	66. 52. 25,07	T.		
	(d) H. C. 10844.....	1. 28,0	27,0	29,4	24,0	27,9	24,5	+1 $\frac{1}{2}$			94. 56. 27,35				31,74	66. 19. 13,56	T.		
Feb. 11	(a) B.A.C. 2759.....	4. 51,0	50,6	48,9	47,0	49,2	46,0				100. 29. 48,73	29,266	40,3	39,9	39,40	71. 52. 42,60	T.		
	H. C. 16245.....	0. 13,9	13,2	13,2	7,8	12,8	8,2				99. 50. 11,57				38,43	71. 13. 4,47	T.		
	ϕ Cancri. <i>sp.</i>	2. 13,4	12,0	15,1	9,0	12,1	8,2				91. 12. 12,25				26,90	62. 34. 53,62	T.		
	H. C. 16810.....	3. 45,0	42,0	47,0	37,9	42,9	37,8				101. 13. 43,13				40,49	72. 36. 38,09	T.		
	(e) Argelander 9164.	1. 9,5	9,0	9,1	5,9	7,4	4,5				66. 21. 7,87				0,06	77. 43. 22,28	T.		
	Bessel ix. 1139..	3. 25,3	24,9	27,1	21,1	25,1	21,3				103. 58. 25,08	29,286	39,4	38,9	44,90	75. 21. 24,45	T.		
	(f) Bessel ix. 1229..	4. 39,1	38,0	42,1	34,3	37,9	32,9				119. 34. 38,67				77,82	90. 58. 10,96	T.		
Feb. 12	(a) Zenith Point....	4. 45,4	45,1	44,0	41,0	41,2	41,0	10,5	9,488		66. 24. 53,53								T.
	1 Tauri.....	4. 60,9	56,1	64,4	56,9	59,5	54,0	+8,3			97. 14. 58,63	29,288	36,5	35,4	35,12	68. 37. 48,22	T.		
	108 Tauri.....	0. 51,3	50,0	50,6	46,5	49,9	45,0				96. 30. 49,12				34,11	67. 53. 37,70	T.		
	Bessel v. 219....	3. 55,4	54,0	58,9	52,1	52,2	50,0				109. 33. 54,85				55,12	80. 57. 4,44	T.		
	(g) β Tauri R.....	4. 47,1	47,0	49,5	43,9	47,0	42,9	6,745	+1 $\frac{1}{2}$		222. 40. 55,23				25,87	61. 31. 32,17	T.		
	(h) β Tauri.....	2. 44,4	41,1	46,1	38,7	41,0	37,0	6,745	+4 $\frac{1}{2}$		90. 8. 51,65					61. 31. 31,99	T.		
	H. C. 11048.....	4. 35,0	31,0	38,8	31,1	35,0	27,9				94. 44. 34,40	29,298	36,3	35,0	31,76	66. 7. 20,63	T.		
Feb. 13	(i) \odot S.L.....	0. 13,4	15,6	15,0	13,0	13,3	10,5		14,163	+1 $\frac{1}{4}$	132. 13. 46,97	20,955	37,0	35,9	133,15	103. 38. 14,59	T.		
	\odot N.L.....	2. 50,5	51,5	53,1	48,9	50,5	46,4		14,163	+2	131. 41. 24,59				129,89	103. 5. 48,95	T.		
	5 Geminorum...	0. 29,4	28,5	29,5	26,9	27,3	24,1				94. 10. 27,75	30,174	32,3	29,2	32,33	65. 33. 14,55	T.		
	(k) Sirius R.....	2. 52,1	51,0	54,2	50,7	51,3	46,9	8,278	+1 $\frac{1}{2}$		177. 43. 27,83	30,184	31,1	28,6	156,60	106. 31. 10,30	T.		
	Sirius.....	0. 40,5	41,0	40,8	37,9	38,0	36,8	8,278	+2 $\frac{3}{4}$		135. 6. 14,92					106. 31. 5,99	T.		
	H. C. 13313.....	0. 46,5	45,1	48,0	43,1	43,1	40,0				94. 25. 44,50				32,73	65. 48. 31,70	T.		
	ω Geminorum...	1. 54,9	51,7	56,3	51,0	52,0	48,7				94. 11. 52,97				32,41	65. 34. 39,85	T.		
	(a) * α . 6 ^h . 58 ^m . 8 ^s .	4. 43,0	42,0	43,9	40,1	40,0	38,1				94. 29. 41,37				32,82	65. 52. 28,66	T.		
	Castor R.....	1. 53,1	53,7	54,4	51,9	53,5	48,7	15,391	+2		226. 25. 0,68	30,177	30,7	28,0	22,42	57. 47. 23,27	T.		
	Castor.....	1. 40,5	37,0	40,9	36,0	37,3	34,9	15,391	+1 $\frac{1}{4}$		86. 24. 45,98					57. 47. 22,87	T.		
	Pollux R.....	0. 57,2	58,4	57,8	55,9	56,1	55,1	11,610			222. 35. 23,45				27,19	61. 37. 5,27	T.		
	(a) Pollux.....	4. 58,2	57,0	59,7	54,2	55,4	53,0	11,610			90. 14. 22,66					61. 37. 4,32	T.		
	(a)(l) 84 Geminorum..	4. 22,8	21,9	23,1	17,5	19,6	17,5			+2 $\frac{1}{2}$	95. 54. 20,61				34,83	67. 17. 9,91	T.		
Feb. 15	(m) \odot N.L.....	2. 6,0	10,0	5,9	7,1	6,9	2,4	+6,5	13,912	+3	131. 0. 45,94	29,924	52,4	54,5	121,10	102. 25. 1,72	T.		
Feb. 16	\odot S.L.....	2. 32,0	32,8	32,9	31,1	33,2	29,7		10,345		131. 12. 25,31	29,950	47,4	46,9	124,19	102. 36. 44,18	T.		
	\odot N.L.....	0. 8,7	12,0	7,1	7,0	10,8	5,7		10,345		130. 40. 1,39				121,24	102. 4. 17,31	T.		
	(a)(n) S.L.....	4. 36,9	38,4	34,9	33,2	36,6	33,0	7,680	-2		116. 30. 17,78	30,100	46,9	46,2	70,60	87. 53. 43,06	T.		
	) S.L.....	...	...	...	...	...	...	7,740	-1		116. 30. 19,53					87. 53. 44,81	T.		
	) S.L.....	...	...	...	...	...	...	8,020			116. 30. 16,70					87. 53. 41,98	T.		
	) S.L.....	...	...	...	...	...	...	8,139	+1		116. 30. 17,25					87. 53. 42,53	T.		
	) S.L.....	...	...	...	...	...	...	8,210	+2		116. 30. 18,83					87. 53. 44,11	T.		
	(a)(a) B.A.C. 2759....	4. 48,0	50,0	48,7	46,0	48,9	43,7				100. 29. 47,50	30,243	41,5	39,8	40,72	71. 52. 42,90	T.		

ONE REVOLUTION of the MICROMETER = 20", 850.
 ASSUMED CO-LATITUDE = 37°. 47'. 8", 00.

ONE INTERVAL from the middle wire for an Equatorial Star = 16", 6.

(a) Negative correction for Runs. (b) 'Not good.' (c) 'The south-preceding and brighter.' (d) 'A star of Mag. 10 and nearly the same N.P.D. preceded.' (e) 'A fainter of Mag. 10 and less N.P.D. preceded.' (f) 'The sf of a close double star, viz. Σ 1404. The other star is Bessel ix. 1228. (g) The mercury oscillating. (h) Very faint from cloud. (i) The Sun had been shining on Microscopes C and F. (k) A mere mass of diffused light, the mercury being much disturbed by wind. (l) 'Not very satisfactory.' (m) Observed hurriedly, and the microscope readings doubtful on account of moisture. (n) Extremely faint and difficult to observe. (o) 'A fainter of less N.P.D. preceded.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for S.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						Inch.	"		"	"	"	
Feb. 16	(a)(b) α Ursæ Maj. R.	4.47,0	47,9	44,1	44,0	45,7	42,9	+6,5	10,151		255.24.42,07	30,243	41,5	39,8	9,54	28.47.9,71	T.		
	(c) α Ursæ Majoris.	0.11,0	12,2	8,7	5,0	11,7	8,1		10,151	+1 $\frac{1}{4}$	57.25.6,76					28.47.11,90	T.		
	(d) H. C. 16810	3.44,5	43,0	46,8	40,5	45,1	39,4				101.13.44,23				41,85	72.36.40,76	T.		
	(b) γ Cancri R.	2.59,9	57,9	61,9	57,4	61,0	55,0		10,618	+1 $\frac{1}{4}$	216.12.46,52				35,04	67.59.49,84	T.		
	γ Cancri	2.17,0	14,6	17,7	10,9	15,7	11,9		10,618	+3	96.37.2,78					67.59.52,50	T.		
Feb. 18	\odot N.L.	2.39,5	40,0	41,0	37,5	40,4	34,4		8,634		129.58.7,85	30,092	49,9	51,0	117,15	101.22.19,68	T.		
	(a) \odot S.L.	4.57,9	61,0	58,5	56,3	60,9	54,3		8,634		130.30.26,63				119,94	101.54.41,25	T.		
	(b) Zenith Point.	0.28,7	30,7	26,9	25,6	29,0	26,6	+6,7	11,664		66.24.53,32								
	γ S.L.	4.4,4	5,5	8,5	2,7	7,6	9,1	+6,5	10,003	-2	108.4.1,95	30,094	48,5	49,1	52,24	79.27.8,87	T.		
	γ S.L.								10,054	-1	108.4.3,43					79.27.10,35	T.		
	γ S.L.								10,177		108.4.3,49					79.27.10,41	T.		
	γ S.L.								10,357	+1	108.4.2,42					79.27.9,34	T.		
	γ S.L.								10,430	+2	108.4.3,64					79.27.10,56	T.		
	(a)(e) ξ Tauri	4.37,9	41,4	37,5	36,1	37,9	41,2				109.24.38,58	30,092	48,1	48,8	54,79	80.47.48,05	T.		
	ϵ Tauri	1.22,2	24,3	23,9	19,8	24,0	19,1				107.56.22,52		47,5	47,4	52,18	79.19.29,38	T.		
	(f) \star R. 3 ^h .47 ^m .0 ^s .	3.47,0	44,8	48,6	43,3	46,8	39,7				83.3.45,85				17,64	54.26.18,17	T.		
	ξ Persei	1.10,0	10,5	9,9	7,6	10,5	3,9				83.16.8,98				17,87	54.38.41,53	T.		
	B.A.C. 1272	1.8,5	9,1	7,5	5,0	8,6	3,9				101.41.7,33	30,108		46,6	41,78	73.4.3,81	T.		
	H. C. 8705	4.31,8	29,0	33,9	28,5	32,8	27,0				98.14.31,48	30,102	46,6	45,9	36,72	69.37.22,88	T.		
Feb. 19	(g) \odot S.L.	4.18,6	18,1	20,0	16,4	19,0	13,3		10,298		130.9.12,29	30,007	40,3	50,0	118,00	101.33.24,97	T.		
	\odot N.L.	1.60,4	63,0	61,0	59,0	60,8	56,1		10,298	+1	129.36.54,49				115,29	101.1.4,46	T.		
	(a)(h) ξ Tauri	4.37,9	41,9	36,6	36,5	38,0	34,1			+3	109.24.37,64	29,958	48,0	48,0	54,63	80.47.46,95	T.		
	(h) γ S.L.	3.6,9	6,4	6,9	4,1	7,8	0,0			-2	104.33.1,81	29,960	48,0	48,0	46,02	75.56.2,51	T.		
	γ S.L.								10,032	-1	104.33.3,20					75.56.3,90	T.		
	γ S.L.								10,151		104.33.2,87					75.56.3,57	T.		
	γ S.L.								10,265	+1	104.33.2,72					75.56.3,42	T.		
	γ S.L.								10,357	+2	104.33.3,13					75.56.3,83	T.		
	(i) ϵ Tauri	1.37,7	37,7	36,6	34,5	38,2	32,9			+4	99.46.37,22	30,059	48,0	46,1	38,88	71.9.30,78	T.		
	(a)(h) Aldebaran	4.61,0	64,9	59,4	59,7	61,9	56,1				102.25.0,50				42,90	73.47.58,08	T.		
Feb. 20	(c) γ S.L.	2.22,5	24,1	23,1	19,8	23,1	19,6			-2	101.52.19,71	30,075	47,1	45,0	42,17	73.15.16,56	T.		
	γ S.L.								10,100	-1	101.52.18,99					73.15.15,84	T.		
	γ S.L.								10,138	+1	101.52.21,24					73.15.18,09	T.		
	γ S.L.								10,200	+2	101.52.21,62					73.15.18,47	T.		
	β Tauri	3.50,9	50,0	54,2	46,5	52,3	43,9				90.8.50,47				26,04	61.31.31,19	T.		
	(k) \star R. 6 ^h .56 ^m .5 ^s .	0.27,1	29,0	26,6	24,9	29,5	23,4				94.40.26,85	30,120	45,9	43,5	31,98	66.3.13,51	T.		
	(a) H. C. 13804	4.57,1	58,9	55,9	54,1	58,8	54,6				94.44.56,55				32,08	66.7.43,31	T.		
	Castor R.	3.20,9	22,6	21,2	19,7	22,7	18,6		5,234		226.25.1,05	30,123	45,1	42,2	21,72	57.47.21,99	T.		
	Castor	3.7,0	5,9	7,3	3,7	7,2	0,2		5,234		86.24.45,25					57.47.21,65	T.		
	Pollux R.	0.55,0	56,2	51,9	53,1	55,1	52,6		11,512		222.35.22,65				26,35	61.37.5,02	T.		
	(a)(l) Pollux	4.53,2	53,7	52,9	48,7	52,7	47,2		11,512	+4	90.14.21,14					61.37.2,17	T.		
Feb. 21	(m) γ S.L.	3.51,7	50,1	53,4	50,4	52,5	45,8			-2	100.18.50,41	30,069	48,2	49,2	39,44	71.41.44,53	T.		
	γ S.L.								10,009	-1	100.18.50,70					71.41.44,82	T.		
	γ S.L.								10,042		100.18.50,60					71.41.44,72	T.		
	γ S.L.								10,054	+1	100.18.51,04					71.41.45,16	T.		
	γ S.L.								10,097	+2	100.18.50,95					71.41.45,07	T.		
	(n) μ Geminorum	2.12,8	11,9	11,8	8,6	13,2	7,0				96.2.11,37				33,38	67.24.59,43	T.		
Feb. 22	(o) Bessel v. 11	3.65,0	64,0	65,0	63,1	66,0	59,5	+5,0			104.49.4,45	30,294	47,5	45,7	47,20	76.12.6,46	T.		
	108 Tauri	0.49,1	49,3	46,0	45,5	49,1	45,0			+1	96.30.47,53				34,53	67.53.36,87	T.		
	β Tauri R.	0.39,5	40,8	35,5	37,7	39,0	35,4		9,256		222.40.53,59				26,19	61.31.33,79	T.		
	β Tauri	3.38,0	34,9	37,9	32,8	36,2	30,9		9,256		90.8.51,23					61.31.32,23	T.		
	H. C. 10661	1.29,0	28,2	28,1	26,0	26,9	22,9				94.21.27,08		46,1	43,8	31,72	65.44.13,61	T.		
	(p) H. C. 10816	2.50,8	49,0	50,5	48,0	49,0	44,1				110.42.48,90				58,31	82.6.2,02	T.		
	μ Geminorum	2.11,1	9,1	10,9	8,0	11,2	5,3				96.2.9,63	30,300	45,3	43,5	34,03	67.24.58,47	T.		
	γ Geminorum	0.51,9	52,7	51,1	50,0	52,1	48,6			+1	102.5.51,24				42,97	73.28.49,02	T.		

ONE REVOLUTION of the MICROMETER = 20",850. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Negative correction for Runs. (b) The mercury much agitated by wind. (c) Cloudy. (d) The printer reading has been diminished 1'.
 See Feb. 11. (e) The readings of B and F have been corrected respectively by +4",8 and +2",2, the positive divisions having been inadvertently bisected by these microscopes. See in the Introduction the Runs of Feb. 19, which were taken in this position of the Circle. (f) 'Good.' (g) Clouded and unsteady.
 (h) Faint from cloud. (i) Cloudy: star scarcely visible. (k) The northern of two very faint. (l) Delay by the Circle slipping after a first
 bisection. (m) Rather ragged. (n) Dense cloud. (o) The northern and brighter of two. (p) Very faint. 'One of the same magnitude
 preceded high in the field.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
Feb. 22	(a) N.L.....	2.32,0	31,0	32,0	28,1	30,4	27,0	+5,0		-2	99.32.31,45	30,302	44,6	42,1	39,17	70.55.25,43	T.
	) N.L.....	...	...	...	...	...	...		9,990	-1	99.32.31,13					70.55.25,11	T.
	) N.L.....	...	...	...	...	...	...		9,959		99.32.31,35					70.55.25,33	T.
	) N.L.....	...	...	...	...	...	...		9,908	+1	99.32.32,10					70.55.26,08	T.
	(b) N.L.....	...	...	...	...	...	...		9,897	+2	99.32.32,12					70.55.26,10	T.
	δ Geminorum....	1.66,0	63,1	65,0	60,9	66,1	59,0				96.22.3,70				34,59	67.44.53,10	T.
Feb. 25	(c) Zenith Point....	4.37,0	37,8	34,0	33,5	33,9	34,6	+4,7	9,131		66.24.53,19						T.
Feb. 26	ρ Leonis.....	2.23,9	23,9	25,0	20,7	23,7	19,7	+5,0			103.32.23,22	30,300	41,9	39,8	54,51	79.55.32,54	T.
	χ Leonis.....	3.11,3	8,8	12,1	8,1	10,0	5,6				110.28.9,83	30,284	40,4	38,0	58,50	81.51.23,14	T.
	) S.L.....	3.15,3	14,0	17,1	11,9	15,2	10,1		7,851	-2	111.59.5,76				61,67	83.22.22,24	T.
	) S.L.....	...	...	...	...	...	...		7,730	-1	111.59.5,02					83.22.21,50	T.
	) S.L.....	...	...	...	...	...	...		7,561		111.59.5,32					83.22.21,80	T.
	) N.L.....	0.23,1	22,5	22,2	19,8	20,3	17,4		7,561	+1	111.26.8,62				60,50	82.49.23,93	T.
	) N.L.....	...	...	...	...	...	...		7,494	+2	111.26.6,88					82.49.22,19	T.
	τ Leonis.....	0.50,7	52,0	50,7	49,1	49,7	47,6				114.55.50,10				68,35	86.19.13,26	T.
	β Virginis.....	0.7,9	7,5	6,0	4,0	5,4	2,0				116.0.5,48	30,285	39,6	37,0	71,13	87.23.31,42	T.
Feb. 27	⊙ N.L.....	1.17,8	21,2	19,1	17,5	20,0	15,3		10,235		126.41.13,80	30,220	45,5	47,9	103,26	98.5.11,87	T.
	⊙ S.L.....	3.35,5	35,2	37,5	33,1	36,3	31,0		10,235		127.13.30,47				105,53	98.37.30,81	T.
Mar. 1	⊙ S.L.....	2.63,9	65,0	65,2	62,5	65,8	59,5		9,601		126.28.12,47				101,69	97.52.8,97	T.
	⊙ N.L.....	0.47,8	52,0	47,3	46,9	49,4	45,8		9,601	+1	125.55.56,89				99,53	97.19.51,23	T.
	(c)(d) Castor R.....	4.56,1	59,0	53,4	52,7	58,4	54,6		9,776	+1½	126.25.0,14	30,284	45,0	44,4	21,74	57.47.22,79	T.
	(c) Castor.....	4.39,9	39,7	36,9	34,5	39,1	34,9		9,776	+4½	86.24.44,02					57.47.20,57	T.
	79 Geminorum....	1.59,0	58,0	59,2	55,4	59,4	53,7				97.56.57,78				36,64	69.19.49,23	T.
Mar. 4	ζ Geminorum....	0.8,6	6,1	7,2	5,9	5,1	1,9	+7,5			97.50.5,83	30,308	37,6	33,0	37,38	69.12.57,70	T.
	(c) 48 Geminorum..	4.53,0	52,0	52,2	50,6	49,6	46,9				94.14.50,68				32,31	65.37.37,48	T.
	Castor R.....	0.42,1	42,3	41,2	39,5	41,9	38,0		11,848		226.25.2,47	30,317	38,4	32,4	22,31	57.47.21,35	T.
	(e) Castor.....	0.23,9	22,0	24,0	21,3	20,6	17,8		11,848		86.24.43,17					57.47.19,97	T.
	Procyon.....	0.33,6	34,2	33,5	32,1	31,4	29,6				113.0.32,53				64,74	84.23.51,76	T.
	Pollux R.....	0.10,3	10,9	8,7	8,5	9,5	7,7		9,226	+1½	222.35.25,28				27,07	61.57.3,30	T.
	(c) Pollux.....	3.66,1	65,0	65,0	61,0	64,0	59,9		9,226	+2½	90.14.20,02					61.37.1,58	T.
	(f) α Hydræ R.....	2.58,5	56,9	57,8	56,0	56,7	54,2		9,969	+1½	186.12.58,10	30,345	35,9	31,7	106,94	98.0.50,35	T.
	α Hydræ.....	1.49,8	50,6	50,4	48,9	49,2	44,4		9,969	+3	126.36.49,79					98.0.51,22	T.
	o Leonis R.....	2.23,7	22,6	23,9	21,6	21,4	18,8		10,659		204.47.8,86				54,57	79.25.47,22	T.
	o Leonis.....	2.55,9	53,2	56,5	53,2	52,6	49,1		10,659	+1½	108.2.40,47					79.25.49,53	T.
Mar. 5	(g) ⊙ N.L.....	1.6,4	9,0	7,4	7,0	5,9	4,0		15,660		124.24.8,89	30,472	41,9	44,0	95,92	95.47.59,30	T.
	⊙ S.L.....	3.20,1	20,2	22,0	20,0	19,7	15,9		15,660		124.56.22,47				97,94	96.20.14,90	T.
	Zenith Point....	0.16,6	16,5	15,2	15,1	13,8	13,2	+7,0	11,037		66.24.53,51						T.
	(h) Σ 1332.sp.....	0.37,6	36,0	36,9	34,6	36,4	32,6	+7,5			94.20.35,83	30,453	41,3	40,6	32,08	65.43.22,40	T.
	(i) Bessel ix. 269....	2.14,3	13,6	13,9	11,6	13,3	8,7			+1½	104.52.13,20				48,04	76.15.15,73	T.
	(c) h Ursæ Majoris R.	4.44,3	46,6	42,1	44,0	44,9	42,8		10,245		257.54.38,94				12,31	26.17.10,26	T.
	h Ursæ Majoris..	0.14,0	14,4	11,2	10,8	13,1	9,9		10,245	+2	54.55.8,41					26.17.10,59	T.
	ν Ophiuchi.....	2.21,9	22,0	21,7	19,9	23,7	17,8		10,245		134.7.16,64	30,438	39,1	35,5	148,40	105.31.59,53	T.
	s Serpentis.....	1.57,0	55,4	56,9	53,0	56,8	50,8				131.16.55,47				129,90	102.41.19,86	T.
	) S.L.....	3.28,7	27,9	31,9	26,1	29,7	24,5		7,758		138.4.15,75	30,492	38,0	36,2	182,60	109.29.32,84	T.
	) S.L.....	...	...	...	...	...	...		7,681	+1	138.4.16,30					109.29.33,39	T.
	) S.L.....	...	...	...	...	...	...		7,657	+2	138.4.15,64					109.29.32,73	T.
Mar. 6	⊙ S.L.....	2.58,5	58,9	58,6	55,1	58,0	50,9		9,235		124.33.13,35	30,499	49,4	50,6	95,27	95.57.3,11	T.
	⊙ N.L.....	0.42,9	46,1	42,0	41,6	44,0	37,9		9,235	+1½	124.0.58,90				98,31	95.24.46,70	T.
	(k) * R. 5h. 28m. 25s	2.55,1	56,6	55,5	53,0	57,8	51,2				111.52.55,60	30,492	47,8	46,8	60,75	83.16.10,84	T.
	H. C. 12518.....	0.20,6	20,8	17,7	14,2	19,3	13,0				98.40.17,68	30,489	46,0	44,4	57,93	70.3.10,10	T.
	H. C. 12687.....	1.35,5	34,9	34,6	31,1	36,9	30,9			+1	90.41.34,46				27,12	62.4.16,07	T.
	H. C. 12839.....	1.46,1	47,6	47,1	43,1	48,8	40,7				99.41.46,00				39,45	71.4.39,94	T.

ONE REVOLUTION of the MICROMETER = 20",850. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Both limbs ragged. (b) 'Not good.' (c) Negative correction for Runs. (d) Very uncertain, the mercury being so much disturbed by wind.
 (e) Bad definition. (f) Very unsteady. (g) Clouds continually passing. (h) 'The sp. of a neat double star.' (i) 'No object near this.'
 (k) Extremely faint: of Mag. 10. 'A star of Mag. 8 high in the field preceded more than 1m.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						Inch.	"			
Mar. 6	H. C. 12962	1. 6,3	7,2	5,2	2,7	7,6	1,7	+7,5			95. 6. 5,38	30,489	46,0	44,4	32,89	66. 28. 52,76	T.
	H. C. 13065	3. 43,5	42,9	45,0	40,4	44,3	37,0				97. 53. 43,12				36,81	69. 16. 34,42	T.
	B.A.C. 2326 R..	3. 5,3	3,9	5,5	3,0	4,9	1,0		11,558		276. 52. 32,22	30,390	45,5	44,0	35,27	7. 18. 54,02	T.
	(a) B.A.C. 2326	2. 48,9	47,2	48,4	42,1	48,0	41,9		11,558	+1 1/2	35. 57. 14,88					7. 18. 51,10	T.
	79 Geminorum ..	1. 58,3	57,0	57,8	54,7	57,3	53,0			+1 3/4	97. 56. 57,01	30,392	45,0	42,6	36,90	69. 19. 48,40	T.
	(b) λ Ursæ Maj. R..	4. 21,0	20,8	16,1	16,9	18,9	20,0		9,052		257. 54. 38,55	30,494	44,4	41,4	12,31	26. 17. 10,65	T.
	(b) λ Ursæ Majoris..	4. 50,8	51,0	46,9	46,0	50,3	45,9		9,052	+1 1/2	54. 55. 8,88					26. 17. 11,06	T.
	o Leonis R.....	1. 8,2	8,9	5,9	5,0	7,1	3,8		7,201	+2	204. 47. 5,02				53,74	79. 25. 50,23	T.
	o Leonis.....	1. 43,0	44,3	42,0	39,6	42,9	38,9		7,201	+4 1/2	108. 2. 41,13					79. 25. 49,36	T.
Mar. 7	H. C. 11244.....	4. 12,0	11,8	14,1	10,0	14,0	4,4				95. 29. 12,10	30,459	46,9	45,8	33,29	66. 51. 59,88	T.
	χ^4 Orionis.....	3. 63,0	60,7	63,6	58,4	63,2	54,6				98. 29. 1,58				37,51	69. 51. 53,58	T.
	H. C. 11617	0. 37,2	37,6	35,2	33,3	34,9	30,0				93. 5. 34,85				30,09	64. 28. 19,43	T.
	γ^1 Orionis	2. 36,4	37,8	37,2	33,8	36,8	30,6			+2	102. 27. 36,25				43,57	73. 50. 34,31	T.
	H. C. 11930.....	0. 50,2	51,0	48,4	47,2	49,9	46,2				96. 25. 49,02				34,59	67. 48. 38,10	T.
	(c) B.A.C. 2039.....	1. 34,6	33,1	34,1	31,0	33,1	27,1				97. 21. 32,57				35,90	68. 44. 22,96	T.
	H. C. 12227.....	4. 9,0	10,2	12,4	7,7	9,0	4,0				102. 29. 9,75				43,61	73. 52. 7,85	T.
	H. C. 12339.....	3. 49,9	47,0	49,9	45,8	49,2	42,8				91. 33. 48,38	30,448	46,0	43,6	28,23	62. 56. 31,10	T.
	H. C. 12536.....	0. 24,1	24,1	21,8	19,0	22,8	17,8				96. 10. 21,68				34,38	67. 33. 10,55	T.
	(d) H. C. 12655.....	1. 11,1	10,5	10,1	6,0	9,6	5,0				96. 21. 9,02				34,63	67. 43. 58,14	T.
	H. C. 12816.....	0. 61,0	60,8	59,1	57,9	58,9	54,0				93. 0. 58,87				30,11	64. 23. 43,47	T.
	H. C. 12962.....	0. 65,5	65,6	63,9	60,2	64,0	58,8				95. 6. 3,27				32,90	66. 28. 50,66	T.
	H. C. 13065.....	3. 44,0	42,9	44,3	40,1	44,1	37,4			+1	97. 53. 43,10				36,82	69. 16. 34,41	T.
Mar. 9	H. C. 11518.....	4. 8,0	6,0	8,9	6,1	8,8	1,6	+7,9			102. 4. 7,65	30,107	43,9	41,9	42,79	73. 27. 4,99	T.
	68 Orionis.....	3. 8,6	6,9	8,3	4,1	6,9	1,6				98. 48. 6,88				37,84	70. 10. 59,27	T.
	H. C. 11897.....	2. 42,3	40,0	41,9	38,2	41,4	37,1				96. 52. 40,87				35,09	68. 15. 30,51	T.
	H. C. 12013.....	0. 55,3	53,4	53,9	50,5	54,0	49,1				91. 10. 52,93				27,53	62. 33. 35,01	T.
	(b)(c) H. C. 12181.....	4. 52,5	52,9	51,6	48,9	52,9	47,1				100. 39. 50,97				40,62	72. 2. 46,14	T.
	H. C. 12337.....	3. 18,6	15,0	17,0	12,1	15,6	10,3		8,830	+1 1/2	96. 23. 40,15	30,108	42,7	40,0	34,56	67. 46. 29,26	T.
	(f) H. C. 12539.....	...	...	...	...	...	...			+1 1/2	96. 23. 15,64				34,55	67. 46. 4,74	T.
	B.A.C. 2173.....	4. 50,2	47,0	51,5	45,1	48,5	42,0				98. 49. 48,65				38,04	70. 12. 41,24	T.
	H. C. 12914.....	1. 58,5	57,1	58,1	53,7	55,3	52,0				97. 46. 56,28				36,52	69. 9. 47,35	T.
Mar. 11	(g) \odot N. L.....	3. 57,1	55,8	57,5	54,9	56,0	50,6		9,561		122. 4. 5,50	30,424	44,3	45,1	87,43	93. 27. 47,48	T.
	\odot S. L.....	1. 7,2	8,9	7,5	6,4	5,2	2,7		9,561	+4	122. 36. 16,67				89,50	94. 0. 0,42	T.
	H. C. 13423.....	0. 23,0	19,8	18,9	17,8	19,0	13,5		10,009		93. 30. 18,56	30,444	41,0	37,4	31,15	64. 53. 4,26	T.
	H. C. 13675.....	2. 25,0	22,6	24,6	21,5	21,3	16,9		10,009		93. 32. 22,43				31,20	64. 55. 8,18	T.
	(b) H. C. 13845.....	4. 32,9	32,5	32,1	30,1	31,3	27,5				100. 9. 30,93				40,68	71. 32. 26,16	T.
	H. C. 13972.....	1. 31,5	29,1	30,0	26,7	27,0	24,1				93. 21. 28,47				30,96	64. 44. 13,98	T.
	H. C. 14108.....	1. 51,1	50,1	52,1	49,0	48,9	45,6				97. 36. 49,95				36,88	68. 59. 41,38	T.
	H. C. 14232.....	1. 14,4	12,0	12,8	10,0	10,7	8,1				91. 51. 11,67				28,97	63. 13. 55,19	T.
	H. C. 14369.....	3. 56,4	54,0	58,3	53,0	54,5	49,6				102. 48. 55,33				44,89	74. 11. 54,77	T.
	H. C. 14534.....	0. 60,0	58,7	59,7	56,7	58,0	53,4				101. 25. 58,02	30,442	41,7	37,4	42,66	72. 48. 55,23	T.
	v Geminorum.....	3. 56,0	51,9	56,8	52,0	53,9	48,2				91. 23. 54,17				28,38	62. 46. 37,10	T.
	H. C. 14913.....	1. 66,0	63,5	65,0	62,1	64,9	59,7			+1 1/2	95. 2. 4,09				33,23	66. 24. 51,87	T.
	κ Geminorum.....	2. 8,7	7,0	9,1	6,0	9,3	3,4				93. 52. 7,80				31,64	65. 14. 53,99	T.
	H. C. 15124.....	4. 14,3	11,3	15,7	12,6	11,5	7,6				97. 19. 13,28				36,45	68. 42. 4,28	T.
	Bessel ix. 1074..	2. 62,8	60,0	62,7	60,0	60,1	57,3				104. 18. 1,28	30,448	37,7	32,3	47,89	75. 41. 3,72	T.
	Bessel ix. 1172..	3. 28,4	26,3	29,0	27,0	26,0	24,3				103. 33. 27,75				46,62	74. 56. 28,92	T.
	Regulus	0. 13,0	13,1	11,0	11,2	9,7	8,5				105. 55. 11,13				50,74	77. 18. 16,42	T.
Mar. 12	\odot S. L.....	2. 35,0	33,9	36,5	33,1	33,4	29,4		9,590		122. 12. 42,78	30,518	44,5	46,7	87,91	93. 36. 25,24	T.
	\odot N. L.....	0. 24,1	25,2	23,1	23,3	23,3	19,3		9,590		121. 40. 31,70				86,17	93. 4. 12,42	T.
	Zenith Point.....	0. 11,2	11,6	10,0	9,8	8,6	8,9	+6,2	10,796		66. 24. 53,45						T.
	χ^1 Orionis.....	2. 40,5	39,9	41,3	38,1	40,9	34,0	+7,9			98. 22. 39,83	30,500	44,4	43,3	37,60	69. 45. 31,98	T.
	Bessel v. 1284...	1. 37,9	37,5	36,8	35,1	36,2	32,0				110. 46. 36,33				58,90	82. 9. 49,78	T.
	χ^3 Orionis.....	0. 59,0	58,4	58,0	57,0	57,4	52,6				98. 55. 57,33				38,42	70. 18. 50,30	T.
	68 Orionis	3. 7,9	7,0	9,9	5,7	7,2	0,4				98. 48. 7,17				38,23	70. 10. 59,95	T.

ONE REVOLUTION of the MICROMETER = 20",850. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) The correction applied for curvature of path = +0",58, which was obtained by special calculation. (b) Negative correction for Runs. (c) 'A star of equal magnitude and greater N.P.D. preceded.' (d) Extremely faint. (e) 'A star of Mag. 9 and less N.P.D. preceded.' (f) This star was bisected before the other. (g) Doubtful on account of clouds.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						Inch.	"		"	"	"	
Mar. 12	γ^1 Orionis	1. 7,0	8,0	7,8	6,0	7,0	3,0	+7,9			102.26. 6,75	30,500	44,4	43,3	43,81	73.49. 5,11	T		
	H. C. 12013.....	0.54,8	54,1	54,1	51,7	52,9	49,0				91.10. 53,00				27,81	62.33. 35,36	T		
	(a)(b) δ Ursæ Min. sp. n.	4.28,0	28,0	25,7	25,8	25,9	24,0		6,851		287.35. 31,74	30,502	42,9	41,6	52,88	-3.24. 23,17	T		
	(b) δ Ursæ Min. SP.	3.10,9	9,2	12,1	7,6	10,0	4,8		6,851		25.14. 15,37					-3.24. 22,96	T		
	H. C. 12655.....	1. 9,4	7,2	8,0	6,0	9,1	2,9			+1	96.21. 7,46				34,83	67.43. 56,84	T		
	H. C. 15172.....	0.51,2	50,2	51,0	48,0	49,8	45,5				93.45. 49,50	30,504	41,5	36,9	31,60	65. 8. 35,65	T		
	(a) 84 Geminorum..	4.23,3	22,1	21,0	18,9	22,0	17,0				95.54. 20,55				34,55	67.17. 9,65	T		
	H. C. 15437.....	2.29,3	27,0	28,3	25,0	26,0	22,0				92. 7. 26,92			36,9	29,41	63.30. 10,88	T		
	H. C. 15660.....	0.17,2	16,0	15,1	13,0	14,1	11,9				96.20. 14,62				35,16	67.43. 4,33	T		
	μ^1 Cancri.....	3.44,0	40,0	44,6	41,2	43,1	36,2			+2	95.33. 42,76				34,07	66.56. 31,38	T		
	(c) H. C. 15954.....	4.11,0	7,5	13,1	9,0	11,0	4,0				97.24. 10,37				36,69	68.47. 1,61	T		
	Bessel ix. 1074..	2.61,2	59,9	61,9	59,8	60,6	55,0				104.18. 0,52	30,506	36,5	33,6	47,84	75.41. 2,91	T		
	(c) Bessel ix. 1176..	0.60,4	59,5	58,3	58,4	59,2	55,3				103.45. 58,77				46,93	75. 9. 0,25	T		
	Regulus.....	0.12,1	12,2	10,0	10,3	11,1	8,0				105.55. 10,67				50,69	77.18. 15,91	T		
Mar. 13	\odot N.L.....	2.49,6	49,9	49,7	49,7	49,0	44,9		12,564		121.16. 56,09	30,457	44,9	47,3	84,66	92.40. 35,30	T		
	(a) \odot S.L.....	4.61,2	63,9	60,0	58,9	59,8	56,9		12,564		121.49. 6,66				86,33	93.12. 47,54	T		
	H. C. 13937.....	1.19,3	18,0	19,7	16,0	18,3	14,6		9,995	+1	97. 1. 18,16	30,435	44,0	41,2	35,73	68.24. 8,44	T		
	λ Geminorum...	3.47,1	46,1	49,0	43,6	47,9	41,1				101.48. 46,80				42,91	73.11. 44,26	T		
	(d) * \mathcal{R} . 7 ^b . 14 ^m . 28 ^s .	3.45,3	44,2	46,2	43,9	45,0	39,4				102.58. 44,98				44,79	74.21. 44,32	T		
	H. C. 14455.....	0.24,0	26,0	22,0	21,7	22,1	19,9				103. 0. 22,72				44,83	74.23. 22,10	T		
	H. C. 14620.....	3. 9,4	8,0	11,1	6,0	9,5	4,0				101.13. 8,83				41,98	72.36. 5,36	T		
	H. C. 14792.....	2.57,6	57,1	58,8	55,0	58,2	53,1				102.12. 57,42				43,55	73.35. 55,52	T		
	(c) H. C. 15950.....	4.10,8	7,8	12,7	6,4	8,9	4,1				97.24. 9,55	30,449	42,7	38,1	36,53	68.47. 0,63	T		
	H. C. 16099.....	0.26,3	25,5	26,5	23,9	23,0	21,9				97. 5. 24,63				36,08	68.28. 15,26	T		
	H. C. 16294.....	0.47,2	46,2	45,0	42,0	45,0	40,3				101.55. 44,48				43,40	73.18. 42,43	T		
	B.A.C. 2810.....	2. 8,1	7,3	9,6	4,6	7,0	5,0				100.57. 7,48				41,85	72.20. 3,88	T		
	A ⁸ Cancri.....	2.41,6	40,7	40,0	38,9	40,1	35,5				105.57. 40,17	30,444	42,0	37,9	50,21	77.20. 44,93	T		
	(e) H. C. 17441.....	...	...	...	...	...	...		15,121		105.55. 53,40				50,16	77.18. 58,11	T		
	(f) H. C. 17647.....	3.59,3	59,0	62,0	57,1	60,6	54,4				132. 3. 59,78				133,74	103.28. 28,07	T		
Mar. 15	H. C. 14350.....	4.20,8	17,5	22,4	18,9	20,3	15,6				95.24. 20,38	30,388	39,4	35,3	33,83	66.47. 8,76	T		
	H. C. 14525.....	0.63,3	62,2	62,3	59,8	61,4	56,4				98.41. 1,17				38,55	70. 3. 54,27	T		
	(a) H. C. 14663.....	4.15,9	16,9	13,8	12,8	14,1	11,0				102.19. 13,88				44,20	73.42. 12,63	T		
	B.A.C. 2499.....	2.46,9	44,1	46,7	42,9	47,0	42,1				98. 7. 45,67				37,73	69.30. 37,95	T		
	H. C. 14929.....	1.12,5	12,0	12,1	10,1	11,5	6,9				95.11. 11,17				33,53	66.33. 59,25	T		
	H. C. 15029.....	3.18,1	15,7	19,4	15,8	15,8	12,0				94. 8. 17,00				32,09	65.31. 3,64	T		
	H. C. 15183.....	3.55,4	53,1	57,1	53,0	54,9	49,0				93.58. 54,78				31,88	65.21. 41,21	T		
	H. C. 15323.....	3.36,1	32,8	36,5	33,2	33,8	29,9				98. 3. 34,67	30,383	36,4	34,1	37,71	69.26. 26,93	T		
	H. C. 15548.....	2. 6,8	3,2	7,1	1,9	5,0	1,0				95. 2. 4,72				33,40	66.24. 52,67	T		
	H. C. 15681.....	0.27,1	29,0	25,8	25,5	25,9	22,5				103.15. 26,08				45,84	74.38. 26,47	T		
	(g) H. C. 15834.....	2. 9,9	10,1	11,2	10,0	8,8	5,7				103. 2. 9,85				45,48	74.25. 9,88	T		
	A ⁸ Cancri.....	2.40,1	38,6	40,6	37,8	38,0	34,9				105.57. 39,03	30,366	36,5	31,9	50,72	77.20. 44,30	T		
	H. C. 17441.....	...	...	...	...	...	...		15,080		105.55. 53,11				50,66	77.18. 58,32	T		
	H. C. 17647.....	3.56,9	57,1	59,1	55,0	58,8	53,0				132. 3. 57,68				135,09	103.28. 27,32	T		
	(h) H. C. 17741.....	3.43,0	40,0	44,9	39,7	43,0	36,7				95.18. 42,18				33,92	66.41. 30,65	T		
	B.A.C. 3103.....	4.31,9	28,6	35,7	28,4	32,7	27,0			+1½	100.54. 32,01				42,22	72.17. 28,78	T		
	B.A.C. 3122.....	1.44,6	43,5	43,4	42,7	42,8	38,9				106.26. 43,10				51,60	77.49. 49,25	T		
	(a) H. C. 18198.....	4.44,5	44,1	43,7	41,9	44,0	40,3				99.44. 43,00	30,365	36,1	31,0	40,48	71. 7. 38,03	T		
	(a) Bessel ix. 195...	4.30,0	31,4	29,0	28,0	28,6	26,8			+2	105.29. 28,97				49,97	76.52. 33,49	T		
	α Hydræ.....	1.49,0	51,0	51,9	48,9	51,0	46,9				126.36. 50,25				107,17	98. 0. 51,97	T		
Mar. 16	(a) H. C. 14192.....	4.53,8	55,2	51,0	52,9	52,0	48,9				103. 9. 52,27	30,234	37,4	32,0	45,67	74.32. 52,49	T		
	H. C. 14407.....	0.52,6	51,1	53,5	49,0	52,0	47,1				100.10. 51,12				40,89	71.33. 46,56	T		
	H. C. 14550.....	1.52,0	50,0	52,0	49,5	50,6	46,4				97.31. 50,57				36,92	68.54. 42,04	T		
	68 Geminorum..	3.28,0	25,8	29,2	23,9	27,1	22,5				102.28. 27,00				44,53	73.51. 26,08	T		
	(i) * \mathcal{R} . 7 ^b . 28 ^m . 50 ^s .	0.16,1	15,3	14,5	12,2	15,7	10,9				96.25. 14,18				35,33	67.48. 4,06	T		
	(a) ϵ Geminorum...	4. 9,9	10,0	8,0	7,3	7,6	6,9				92.29. 8,05				29,93	63.51. 52,53	T		
	82 Geminorum..	1.50,7	48,6	50,0	47,1	48,8	45,0				95. 6. 48,85				33,49	66.29. 36,89	T		

ONE REVOLUTION of the MICROMETER = 20",850. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Negative correction for Runs. (b) Times of bisection by Molyneux, 6^h.22^m.42^s and 6^h.24^m.9^s. By a Circle transit March 11, Molyneux was 2^m.9^s fast. (See the Circle transits in the Introduction.) (c) Extremely faint. (d) Observed for H. C. 14336. (e) This is Σ 1237; it was not observed to be double. (f) No object near this. (g) 'A very faint star of greater N.P.D. followed.' (h) Σ 1297, 'observed as single.' The small star was probably invisible in the illumined field. (i) Extremely faint; observed for H. C. 14817.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.			Observer.				
		A	B	C	D	E	F						Int.	Ext.		"	"	"		"	"	"	"
Mar. 16	H. C. 15281	2. 6,5	5,6	6,8	3,0	5,0	0,1	+7,9			98. 47. 5,05	30,233	36,3	31,4	38,82	70. 9. 58,42		T.					
	H. C. 15482	2. 14,8	12,2	15,5	12,0	13,2	10,5			+1	100. 7. 13,62				40,85	71. 30. 9,07		T.					
	H. C. 15646	3. 19,7	17,0	20,5	15,0	18,1	12,0				98. 28. 17,92				38,35	69. 51. 10,82		T.					
	(a) H. C. 15751	1. 15,5	13,7	15,4	12,4	13,2	9,5				97. 41. 13,62				37,20	69. 4. 5,37		T.					
	H. C. 15880	0. 6,8	6,1	6,7	3,0	5,8	2,1				98. 25. 5,12				38,27	69. 47. 57,94		T.					
	(b) Bessel VIII. 94...	4. 29,9	30,5	27,4	27,0	27,2	25,6			+1	104. 14. 27,82		35,5	30,6	47,62	75. 37. 29,99		T.					
	(b) H. C. 16172	3. 55,0	54,1	54,1	50,4	53,0	49,1				96. 58. 52,33				36,23	68. 21. 43,11		T.					
	H. C. 16327	3. 16,2	13,8	20,0	13,9	15,3	10,1				100. 18. 15,75				41,20	71. 41. 11,50		T.					
Mar. 18	(c) N.L.	3. 24,3	24,8	25,5	24,7	24,0	19,3	+6,7	9,286		119. 18. 39,42	30,230	39,5	39,4	79,49	90. 42. 13,20		T.					
	(c) S.L.	0. 34,8	38,0	34,6	34,4	35,5	31,5		9,286		119. 50. 49,82				81,04	91. 14. 25,15		T.					
	(d) S.L.	0. 30,9	31,9	29,9	30,9	32,0	27,3		9,498	-1	105. 25. 38,75	30,190	40,1	42,0	48,44	76. 48. 41,48		T.					
	) S.L. ....	...	...	...	...	...	...		9,549		105. 25. 40,00					76. 48. 42,73		T.
	) S.L. ....	...	...	...	...	...	...		9,625	+1	105. 25. 40,82					76. 48. 43,55		T.
	) S.L. ....	...	...	...	...	...	...		9,680	+2	105. 25. 42,14					76. 48. 44,87		T.
Mar. 20	Zenith Point....	4. 58,7	60,4	57,2	57,1	58,8	57,1		10,216		66. 24. 53,71							T.					
Mar. 21	H. C. 19503	1. 6,2	6,0	5,7	3,2	4,8	0,0				102. 41. 4,57	30,197	37,7	32,1	44,81	74. 4. 3,67		T.					
	B.A.C. 3464	2. 25,8	27,8	26,5	24,1	26,4	23,0			+1 3/4	108. 17. 26,13				54,73	79. 40. 35,15		T.					
	(e) Bessel x. 96....	3. 48,0	48,0	48,9	46,0	47,6	45,7				106. 8. 48,32				50,75	77. 31. 53,36		T.					
	Bessel x. 187....	2. 63,8	64,0	64,3	63,6	64,3	59,1				105. 53. 3,87				50,28	77. 16. 8,44		T.					
	Bessel x. 260....	2. 24,2	24,3	24,5	21,9	25,6	20,0				103. 57. 23,95				46,93	75. 20. 25,17		T.					
	(a) Bessel x. 352....	2. 41,2	42,1	43,1	40,0	43,8	37,0				113. 22. 41,80				65,36	84. 46. 1,45		T.					
Mar. 23	(f) Bessel ix. 22. ...	1. 44,0	45,5	43,7	44,3	44,3	40,9				104. 16. 44,17	29,436	39,3	34,5	46,05	75. 39. 44,51		B.					
	H. C. 18350	1. 20,1	21,6	19,1	19,7	19,9	17,3				107. 16. 19,90				51,22	78. 39. 25,41		B.					
	H. C. 18763	0. 28,4	30,0	28,2	28,2	30,3	25,9				99. 40. 28,62				38,86	71. 3. 21,77		B.					
	Bessel ix. 670....	2. 39,3	38,9	39,5	38,9	39,8	34,4				105. 12. 39,05				47,61	76. 35. 40,95		B.					
	19 Sextantis... ..	0. 39,9	42,1	38,9	39,3	39,0	36,6				113. 15. 39,45	29,426	38,2	33,4	63,26	84. 38. 57,00		B.					
	(g) Bessel x. 221	4. 26,0	25,0	26,8	26,5	25,8	22,0				113. 54. 26,32				64,71	85. 17. 45,32		B.					
	Bessel x. 330....	4. 35,0	34,2	37,6	33,7	36,5	31,4				107. 24. 35,77				51,57	78. 47. 41,63		B.					
Mar. 25	⊙ N.L.	0. 12,5	14,8	12,0	11,1	11,1	9,4	+11,5	15,564		116. 33. 15,89	29,676	35,4	35,7	71,25	87. 56. 40,63		B.					
	⊙ S.L.	2. 15,3	17,6	15,0	16,4	14,4	11,5		15,564		117. 5. 19,89				72,63	88. 28. 46,01		B.					
	(h) H. C. 15528	3. 61,0	59,4	63,3	61,3	59,3	57,0				97. 4. 1,75	29,662	34,7	28,3	35,85	68. 26. 51,09		B.					
	H. C. 15809	0. 10,0	9,1	9,0	7,3	8,4	4,2				95. 25. 8,05				33,54	66. 47. 55,08		B.					
	(b)(i) H. C. 15954	4. 10,8	10,4	9,5	7,3	7,2	6,7				97. 24. 8,35				36,33	68. 46. 58,17		B.					
	H. C. 16118	0. 22,1	21,2	21,9	18,3	19,3	16,9				97. 25. 20,07				36,36	68. 48. 9,92		B.					
	H. C. 16283	3. 12,6	9,6	13,7	8,6	10,6	5,6				98. 18. 11,35				37,63	69. 41. 2,47		B.					
	(k) H. C. 16684	1. 21,6	21,8	20,3	20,3	19,5	18,9				103. 41. 20,90				46,02	75. 4. 20,41		B.					
	B.A.C. 2888	2. 26,8	26,9	27,3	26,0	25,3	23,4				102. 47. 26,87				44,55	74. 10. 24,91		B.					
	B.A.C. 2927	1. 57,3	55,5	58,4	54,0	55,8	52,2				97. 36. 56,27				36,64	68. 59. 46,40		B.					
	H. C. 17249	2. 39,1	36,0	40,6	34,6	37,6	33,9				97. 27. 37,97				36,41	68. 50. 27,87		B.					
	Bessel VIII. 1087.	2. 25,0	24,3	24,7	22,6	22,6	21,0				106. 12. 24,28				50,36	77. 35. 28,13		B.					
	H. C. 17999	3. 23,9	22,1	23,8	21,2	22,2	20,4				103. 18. 23,57	29,659	32,9	26,8	45,53	74. 41. 22,59		B.					
	π ¹ Cancri	1. 20,1	19,9	19,3	18,4	16,7	16,3				103. 1. 18,95				45,06	74. 24. 17,50		B.					
	Bessel ix. 253 ...	0. 59,0	58,0	58,9	56,3	56,6	55,5				107. 0. 57,75				51,99	78. 24. 3,23		B.					
	Bessel ix. 483 ...	2. 58,3	56,1	58,9	55,8	56,3	53,7				104. 27. 57,65				47,48	75. 50. 58,62		B.					
	(l) Bessel ix. 608 ...	1. 38,0	37,5	38,4	35,4	35,9	34,2				107. 41. 37,18				53,24	79. 4. 43,91		B.					
	π Leonis	1. 16,8	16,4	17,2	14,9	14,5	13,5			+2 1/2	109. 51. 16,20				57,42	81. 14. 27,11		B.					
	(b)(m) Regulus R....	4. 30,0	32,5	27,7	29,0	29,2	28,2		9,626	+1 1/2	206. 54. 36,97	29,655	32,2	27,8	49,89	77. 18. 15,43		B.					
	Regulus	0. 4,3	4,4	2,5	1,6	1,3	0,0		9,626	+3	105. 55. 10,48					77. 18. 13,86		B.					
	(n) N.L.	1. 10,8	10,6	10,4	9,1	8,3	7,5		9,024	-2	109. 16. 36,38	29,659	31,9	27,5	56,19	80. 39. 46,06		B.					
	) N.L. ....	...	...	...	...	...	...		8,871	-1	109. 16. 36,47					80. 39. 46,15		B.
	) N.L. ....	...	...	...	...	...	...		8,769		109. 16. 35,55					80. 39. 45,33		B.
	) N.L. ....	...	...	...	...	...	...		8,579	+1	109. 16. 36,52					80. 39. 46,20		B.
	) N.L. ....	...	...	...	...	...	...		8,411	+2	109. 16. 37,08					80. 39. 46,76		B.
	σ Leonis	0. 19,6	20,5	18,8	17,6	18,0	17,1		8,411		111. 45. 51,85				61,29	83. 9. 6,63		B.					

ONE REVOLUTION of the MICROMETER = 20",850. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED Co-LATITUDE = 37°. 47'. 8",00.

(a) Very faint. (b) Negative correction for Runs. (c) Limbs badly defined and very unsteady. (d) Very doubtful observation, the Moon being much clouded. (e) 'A bright star of greater N.P.D. preceded.' (f) 'Another of greater N.P.D. in the field.' (g) 'A star of Mag. 7.8 and somewhat greater N.P.D. precedes.' (h) The sky had just cleared. (i) 'The southern of two.' (j) 'The middle and brightest of three of nearly the same R.A.' (k) 'Another precedes.' (l) Disturbance. (m) Very steady.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
Mar. 25	τ Leonis.....	0.53,0	53,1	53,9	50,2	51,5	47,5	+11,5			114.55.51,87	29,659	31,9	27,6	68,44	86.19.13,80	B.
Mar. 26	\odot S.L.....	2.36,8	37,1	36,7	37,2	36,8	33,8		12,416		116.41.47,03	29,693	35,2	36,8	71,50	88.5.12,02	B.
	\odot N.L.....	0.34,1	37,3	33,3	33,7	33,3	30,6		12,416		116.9.43,56				70,16	87.33.7,21	B.
	σ Leonis.....	0.52,0	53,1	50,9	50,4	51,4	47,7				111.45.51,25	29,756	34,7	28,4	61,37	83.9.6,11	B.
	τ Leonis.....	0.52,0	53,6	51,9	52,3	51,8	49,1				114.55.52,13				68,54	86.19.14,16	B.
	(a) η N.L.....	3.38,1	36,7	39,0	38,3	37,9	34,0		10,742	-2	113.53.29,82				66,09	85.16.49,40	B.
	η N.L.....	...	...	...	...	...	...		10,581	-1	113.53.29,88					85.16.49,46	B.
	η N.L.....	...	...	...	...	...	...		10,405		113.53.30,28					85.16.49,86	B.
	η N.L.....	...	...	...	...	...	...		10,264	+1	113.53.29,97					85.16.49,55	B.
	η N.L.....	...	...	...	...	...	...		10,057	+2	113.53.31,06					85.16.50,64	B.
	π Virginis.....	4.50,4	48,2	53,1	48,6	50,3	44,9				111.9.51,12				60,10	82.33.4,71	B.
	(b) η Virginis.....	1.33,9	34,8	34,2	32,5	33,6	30,0				118.26.33,75				77,62	89.50.4,86	B.
	Zenith Point....	0.31,8	33,2	30,6	31,9	31,2	30,9		11,790		66.24.54,51						B.
Mar. 27	(c) \odot N.L.....	2.13,3	17,8	12,8	14,4	13,4	11,0		12,859		115.46.15,02	29,802	35,8	39,9	69,01	87.9.37,52	B.
	\odot S.L.....	4.17,7	20,5	19,3	18,6	17,9	14,4		12,859		116.18.20,11				70,32	87.41.43,92	B.
	(d)(e) Bessel ix. 437...	4.55,2	57,0	54,9	55,1	55,3	52,9				105.34.55,03	29,860	36,1	30,8	49,32	76.57.57,84	B.
	(f) H. C. 19036.....	1.26,4	25,3	26,6	22,9	26,5	22,4				100.51.25,55				41,53	72.14.20,57	B.
	(g) H. C. 19162.....	3.42,1	40,7	43,1	41,3	43,0	38,9			+2	99.48.43,14				39,93	71.11.36,56	B.
	(h) Bessel ix. 962...	1.35,3	35,5	34,6	33,2	35,1	31,3				111.26.34,78				60,59	82.49.48,86	B.
	η N.L.....	3.51,7	50,1	52,1	48,3	51,4	46,7		10,582	-2	118.43.46,00	29,886	33,7	28,3	78,78	90.7.18,27	B.
	η N.L.....	...	...	...	...	...	...		10,376	-1	118.43.46,99					90.7.19,26	B.
	η N.L.....	...	...	...	...	...	...		10,221		118.43.46,92					90.7.19,19	B.
	η N.L.....	...	...	...	...	...	...		10,080	+1	118.43.46,56					90.7.18,83	B.
	η N.L.....	...	...	...	...	...	...		9,929	+2	118.43.46,42					90.7.18,69	B.
	(i) Hebe.....	0.50,1	51,0	50,1	48,8	49,8	43,8			+3	106.55.49,81				52,06	78.18.55,36	B.
Mar. 28	(k) \odot S.L.....	0.42,0	40,0	40,6	39,9	41,5	34,4		12,267		115.54.52,73	30,001	37,0	41,6	69,57	87.18.15,79	B.
	\odot N.L.....	3.32,9	32,9	33,4	32,4	32,8	28,1		12,267		115.22.46,18				68,27	86.46.7,94	B.
	82 Geminorum..	1.51,9	52,0	51,6	50,2	52,2	46,8				95.6.51,50	30,038	37,2	35,4	33,04	66.29.38,03	B.
	H. C. 15398.....	1.31,2	33,3	31,0	32,2	32,8	28,9				100.16.32,15				40,48	71.39.26,12	B.
	B.A.C. 2658.....	3.5,3	5,1	6,7	5,6	7,2	2,1				99.58.6,52				40,01	71.21.0,02	B.
	H. C. 16756.....	2.5,5	7,3	5,6	5,4	6,2	2,2				102.47.6,17	30,041	36,8	34,3	44,53	74.10.4,19	B.
	H. C. 16964.....	4.30,8	29,9	33,2	31,7	31,4	27,2				94.24.32,43				32,16	65.47.18,08	B.
	(l) Bessel viii. 936..	2.31,3	31,0	31,2	30,0	31,8	27,1				104.27.31,37				47,32	75.50.32,18	B.
	H. C. 17288.....	4.38,8	38,3	40,2	38,3	40,4	34,6				102.44.40,22				44,47	74.7.38,18	B.
	Bessel viii. 1134.	0.6,7	8,8	5,3	6,5	6,3	3,6				104.40.6,23				47,67	76.3.7,39	B.
	(e) Bessel viii. 1264.	4.22,2	25,0	20,7	22,2	22,6	20,1				105.49.21,87				49,68	77.12.25,04	B.
	Bessel xi. 91.....	2.50,1	50,0	51,6	48,6	51,7	46,7				112.37.50,88	30,049	34,8	28,3	63,88	84.1.8,25	B.
	H. C. 21626.....	2.3,1	4,0	3,9	2,9	3,9	0,8				115.22.3,88				70,30	86.45.27,67	B.
	θ Virginis.....	0.30,7	31,3	30,7	29,0	31,3	27,9				123.20.30,33	30,050	33,3	27,4	94,07	94.44.17,89	B.
	Hebe.....	2.8,0	7,1	8,7	6,0	8,3	5,9			+1	106.47.8,26				52,17	78.10.13,92	B.
	Spica.....	3.27,4	26,3	28,4	24,6	28,5	23,8				128.58.27,83				117,80	100.22.39,12	B.
	(m) \odot S.L.....	0.40,5	41,6	40,0	39,0	42,2	38,8		10,391	-2	124.0.38,74				96,50	95.24.28,75	B.
	\odot S.L.....	...	...	...	...	...	...		10,232	-1	124.0.38,93					95.24.28,92	B.
	\odot S.L.....	...	...	...	...	...	...		10,024		124.0.40,12					95.24.30,11	B.
	\odot S.L.....	...	...	...	...	...	...		9,889	+1	124.0.39,76					95.24.29,75	B.
	\odot S.L.....	...	...	...	...	...	...		9,743	+2	124.0.39,61					95.24.29,60	B.
Mar. 30	(n) \odot N.L.....	1.18,0	21,3	17,7	19,4	19,6	14,7		10,227		114.36.14,22	29,845	39,2	46,0	65,50	85.59.33,21	B.
	\odot S.L.....	3.15,2	18,0	17,2	17,3	18,2	13,4		10,227		115.8.13,09				66,74	86.31.33,32	B.
Apr. 2	Bessel viii. 828..	2.61,9	61,9	61,1	59,1	62,7	56,3	+4,4			106.33.0,93	29,144	49,7	51,7	47,71	77.56.3,26	B.
	H. C. 17288.....	4.42,6	42,3	43,0	40,3	43,9	36,7				102.44.42,15				41,62	74.7.38,39	B.
	(a) Bessel viii. 1552.	4.30,5	28,6	29,6	27,2	31,3	24,5				104.39.29,28			51,4	44,63	76.2.28,53	B.
	(a) Bessel ix. 119...	3.65,5	62,5	62,8	60,3	64,0	57,6				106.24.2,37				47,49	77.47.4,48	B.
	(b) Bessel ix. 233...	4.26,0	24,4	26,4	21,9	27,6	19,7				107.9.24,98				48,77	78.32.28,37	B.
	H. C. 18677.....	1.24,7	25,3	22,3	21,9	26,3	20,8				105.1.23,75				45,22	76.24.23,59	B.

ONE REVOLUTION of the MICROMETER = 20",850. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Cloudy. (b) Faint from cloud. (c) Waving. (d) Just after clouds had cleared off. (e) Negative correction for Runa. (f) 'This was the only star.' (g) Definition not good. (h) Very faint from haze. (i) Faint. Sum of corrections for change of N.P.D. and curvature of path = + 0",58. (k) Very unsteady. (l) The Pointer reading has been diminished 10". (m) 'The Limb rather rough.' (n) Faint but very steady.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						"	"		"	"	"	
Apr. 2	(a)(b) Bessel ix. 565...	4.40,8	44,2	37,9	38,7	42,2	38,1	+4,4	12,663		107.29.40,27	29,144	49,7	51,4	49,35	78.52.44,24	B.		
	Bessel ix. 657...	1.8,2	10,0	6,3	5,9	8,1	3,9				109.16.7,23					80.39.14,37			
	* R. 9 ^h . 30 ^m . 23 ^s	...	...	...	...	...	...				109.15.11,71					80.38.18,82
	(a) H. C. 19589...	4.55,3	57,0	52,4	52,8	56,1	52,0				104.59.54,25					76.22.54,22			
	H. C. 20021...	1.50,9	51,8	49,9	48,8	52,2	46,8				107.56.50,33					79.19.55,29			
	Bessel x. 261...	2.25,5	26,7	24,1	24,3	27,1	21,3				114.12.25,18					85.35.42,43			
	(a) Bessel x. 422...	4.43,1	46,2	40,8	41,0	44,6	39,0				112.54.42,40					84.17.56,88			
	Bessel x. 552...	0.27,2	29,2	24,6	23,9	28,3	22,8				111.55.26,07					83.18.38,62			
	Bessel x. 658...	2.41,7	41,8	40,0	40,3	42,8	38,2				113.47.41,20					85.10.57,65			
	(a) Bessel x. 718...	4.36,9	39,8	33,6	34,0	38,2	34,2				108.59.36,05					80.22.42,97			
	(a) Bessel x. 910...	4.21,7	25,4	19,2	20,4	23,3	19,5				115.14.21,50					86.37.41,16			
	Bessel x. 1043...	1.30,1	31,7	28,1	28,0	32,1	26,8				115.26.29,68					86.49.49,98			
	Bessel x. 1058...	...	...	...	...	...	...				115.24.21,39					86.47.41,61
	(a) γ Ursæ Maj. R...	4.16,2	17,8	11,8	13,4	16,1	15,5				11,527					248.43.43,12		35.28.15,93	
γ Ursæ Majoris...	1.36,7	36,7	33,7	32,6	38,0	31,2	11,527	64.6.4,06	35.28.16,36										
Apr. 3	(d) ☉ S.L.....	0.47,2	50,0	44,6	47,1	47,9	44,2				113.35.46,95	29,310	49,7	57,4	60,67	84.59.2,24	B.		
	Apr. 5	Bessel viii. 415...	2.59,4	59,9	59,0	58,6	61,4	53,7				104.37.59,10	29,773	50,8	48,3	45,84	76.0.59,56	B.	
		(e) Bessel viii. 586...	4.44,4	43,9	44,2	44,1	47,0	38,8				103.44.44,43			44,40	75.7.43,45	B.		
		(f) 54 Cancri.....	2.57,9	59,2	57,8	58,2	59,0	53,0				102.42.57,95			42,77	74.5.55,34	B.		
		Bessel viii. 1210...	4.28,4	26,5	28,4	26,2	30,4	21,9			+2	104.29.27,77			45,61	75.52.28,00	B.		
		Bessel viii. 1344...	1.38,9	39,0	36,3	37,8	40,0	34,2				104.11.37,93			45,12	75.34.37,67	B.		
		Bessel viii. 1441...	3.29,4	28,0	28,7	29,1	30,1	23,8				105.48.28,70			47,80	77.11.31,12	B.		
		Bessel viii. 1552...	4.27,2	25,2	27,0	25,9	28,8	20,7				104.39.26,45			45,88	76.2.26,95	B.		
		H. C. 18677...	1.23,7	23,6	21,3	22,5	23,0	19,4				105.1.22,45	29,760	48,6	45,9	46,69	76.24.23,76	B.	
		(g) Bessel ix. 591...	2.39,5	38,5	36,9	38,8	39,9	34,8				103.52.38,45			44,81	75.15.37,88	B.		
		Bessel ix. 717...	0.49,4	52,0	48,6	49,4	51,0	47,0			+2	108.30.49,79			52,82	79.53.57,23	B.		
		H. C. 19162...	3.45,5	44,3	43,4	44,7	47,0	40,0				99.48.44,70			38,56	71.11.37,88	B.		
		Bessel ix. 929...	3.4,7	4,5	4,3	5,0	4,8	0,3				103.48.4,38			44,69	75.11.3,69	B.		
		(h) Regulus R.....	3.64,7	64,0	63,2	63,7	66,5	59,9		8,514	-2	206.54.35,11	29,774	48,3	44,8	48,34	77.18.14,61	B.	
Regulus.....		4.40,7	38,9	40,5	40,1	41,0	35,3		8,514		105.55.11,08				77.18.14,04	B.			
Bessel x. 1100...	4.55,7	53,4	56,6	54,5	55,9	49,3		8,514		110.10.25,93	29,769	46,7	43,4	56,28	81.33.36,83	B.			
Bessel xi. 77...	0.50,7	52,6	49,3	50,9	50,4	46,7		8,514		109.51.21,20			55,66	81.14.31,48	B.				
76 Leonis.....	2.53,9	53,7	53,4	52,6	54,4	49,1		8,514		116.8.24,25			69,33	87.31.48,20	B.				
B.A.C. 4200.....	3.30,8	29,3	30,9	28,6	29,3	25,3				122.23.29,55	29,750	44,9	41,2	87,27	93.47.11,44	B.			
Bessel xii. 445...	2.43,4	42,8	42,6	41,5	41,4	38,6				119.37.42,12			78,84	91.1.15,58	B.				
(i) Bessel xii. 555...	1.62,7	63,1	63,2	62,3	63,0	59,4				126.32.2,58			102,44	97.55.59,64	B.				
(k) Bessel xii. 561...	...	...	...	...	...	...		6,372		126.33.18,22			102,53	97.57.15,37	B.	
Apr. 8	Zenith Point ...	3.62,9	60,5	61,3	60,3	60,6	57,2	+4,7	7,492		66.24.53,38						B.		
Apr. 9	(l) Polaris R.	2.16,8	15,4	14,6	13,8	12,5	10,2	+4,4	10,983		282.41.53,44	29,389	51,5	56,2	41,52	1.29.26,42	B.		
	Polaris	3.13,6	11,7	12,4	10,4	12,2	7,8		10,983		30.7.55,00					1.29.28,10	B.		
Apr. 10	(m) ζ Hydræ R.....	3.7,4	7,4	6,5	7,4	7,6	3,0		8,701	+1½	200.43.34,04	29,372	50,5	47,3	58,92	83.29.26,26	B.		
	ζ Hydræ	0.43,7	44,4	41,3	44,3	42,6	39,1		8,701	+4	112.6.10,02				83.29.23,56	B.			
	H. C. 17801...	1.8,4	9,4	5,7	7,1	7,6	3,1				103.26.7,05			43,40	74.49.5,07	B.			
	Bessel viii. 1441...	3.29,9	27,3	29,0	29,4	29,0	22,8			+1	105.48.28,43			47,26	77.11.30,31	B.			
	H. C. 17999.....	3.26,7	25,9	25,7	26,2	26,4	21,2				103.18.25,85			43,20	74.41.23,67	B.			
	π ¹ Cancri	1.21,3	21,7	19,6	21,3	20,2	15,8				103.1.20,18			42,75	74.24.17,55	B.			
	H. C. 18251 .....	...	...	...	...	...	...		15,548		102.59.24,50			42,71	74.22.21,83	B.
	H. C. 18321	2.50,1	49,8	48,8	49,6	49,1	44,0				99.12.48,98			37,10	70.35.40,70	B.			
	H. C. 18414	3.12,7	10,7	12,6	11,9	12,4	7,1				101.23.11,70			40,26	72.46.6,58	B.			
	Bessel ix. 359...	2.9,0	8,4	8,2	8,9	9,6	4,3				103.47.8,38			43,96	75.10.6,96	B.			
	(a) Bessel ix. 437...	4.58,3	58,6	56,0	58,7	57,0	52,9				105.34.56,92			46,88	76.57.58,42	B.			
	Bessel ix. 533...	3.28,1	25,9	26,8	25,8	27,3	20,7				106.13.26,27			47,96	77.36.28,85	B.			

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.	
		A	B	C	D	E	F						Int.	Ext.				
		"	"	"	"	"	"						"	"				"
Apr. 10	Bessel ix. 657...	1. 7,4	7,9	5,5	6,5	5,3	2,3	+4,4	7,727		109. 16. 5,98	29,372	50,5	47,3	53,38	80. 39. 13,98	B	
	H. C. 19438.....	4. 63,8	64,9	61,4	62,8	62,8	58,6				103. 10. 2,58	29,368	49,2	45,1	43,17	74. 33. 0,17	B.	
	H. C. 19442.....	...	...	...	...	...	...				103. 10. 49,77				43,19	74. 33. 47,58	B.
	(a)	Bessel ix. 1137..	2. 53,6	52,2	53,7	52,2	53,4	46,9	9,265	+3		107. 7. 52,42			49,74	78. 30. 56,78	B.	
	Regulus R.....	4. 19,0	17,5	17,1	17,5	19,0	13,1	206. 54. 32,85							47,65	77. 18. 16,18	B.	
	Regulus.....	4. 56,2	53,0	56,6	54,5	55,7	48,6	105. 55. 10,68								77. 18. 12,95	B.	
	Bessel x. 110.....	2. 24,7	23,4	23,5	23,3	23,4	18,7	9,265	+4		112. 7. 23,18			59,22	83. 30. 37,02	B.		
	H. C. 20080.....	2. 13,3	12,1	13,2	11,8	13,3	8,3				106. 47. 12,32				49,14	78. 10. 16,08	B.	
	(b)	H. C. 20183.....	2. 6,8	5,2	6,1	4,8	5,2				1,3	106. 42. 5,22				48,99	78. 5. 8,83	B.
	Bessel x. 297.....	...	...	...	...	...	...	9,930			106. 42. 6,68			48,99	78. 5. 10,29	B.	
	Bessel x. 938.....	2. 30,0	27,8	28,2	28,5	28,6	23,9				113. 27. 28,20			43,3	62,27	84. 50. 45,09	B.	
	Hebe.....	4. 12,7	9,8	12,5	10,6	11,4	4,6				105. 9. 10,88	29,346	47,0	42,4	46,60	76. 32. 12,10	B.	
Apr. 15	Zenith Point....	4. 34,9	32,2	34,5	30,8	33,3	27,9	+5,9	9,008		66. 24. 53,84						B.	
	Bessel ix. 1028..	3. 49,2	47,8	47,9	45,2	47,9	41,9				110. 13. 47,40	29,260	50,3	48,2	54,89	81. 36. 56,45	B.	
	H. C. 19857.....	1. 63,6	62,6	61,8	58,8	61,6	56,2				110. 12. 1,17				54,83	81. 35. 10,16	B.	
Apr. 17	(c) μ Geminorum...	2. 13,2	14,8	10,7	12,0	11,9	8,4				96. 2. 12,67	29,554	53,6	57,2	32,28	67. 24. 59,11	B.	
Apr. 18	(d) \odot S.L.	0. 17,8	20,0	16,2	19,6	18,4	14,6	10,764			108. 5. 1,90	29,895		57,3	51,07	79. 28. 7,13	B.	
	\odot N.L.	3. 22,8	25,8	22,4	23,4	23,6	16,9				107. 33. 7,22				50,12	78. 56. 11,50	B.	
	Bessel x. 37.....	2. 38,8	38,9	38,9	36,9	39,7	33,8				112. 37. 38,35	29,975	51,3	48,4	61,09	84. 0. 53,60	B.	
	Hebe.....	0. 33,4	31,7	30,7	29,8	31,0	27,6				104. 25. 30,80	29,990	48,3	43,4	46,29	75. 48. 31,25	B.	
Apr. 20	\odot N.L.	1. 39,9	43,3	37,7	39,7	41,9	35,7	10,751	-2		106. 51. 40,03	29,490	52,5	55,4	48,44	78. 14. 42,63	B.	
	δ Cancri.....	0. 10,0	10,1	7,2	7,2	9,3	4,9				99. 55. 8,15	29,436	52,6	50,5	37,94	71. 18. 0,25	B.	
	α Cancri.....	0. 61,7	61,9	58,5	57,7	60,5	55,7				106. 10. 59,53				47,68	77. 34. 1,37	B.	
	(e) γ N.L.	3. 36,8	34,5	34,7	33,6	36,7	31,0				103. 53. 24,41			48,6	44,10	75. 16. 22,67	B.	
	γ N.L. ....	...	...	...	...	...	...	10,511	-1		103. 53. 24,42					75. 16. 22,68	B.
	γ N.L. ....	...	...	...	...	...	...				103. 53. 24,60					75. 16. 22,86	B.
	γ N.L. ....	...	...	...	...	...	...				103. 53. 25,20					75. 16. 23,46	B.
	γ N.L. ....	...	...	...	...	...	...				103. 53. 25,00					75. 16. 23,26	B.
	α Leonis.....	2. 49,7	48,2	49,3	46,9	49,3	43,2	10,276	+2		108. 2. 42,57				51,11	79. 25. 47,84	B.	
	(f) Regulus R.....	4. 16,8	14,3	14,5	13,5	16,2	9,4				206. 54. 35,47				47,42	77. 18. 13,79	B.	
	Regulus.....	4. 51,8	49,0	51,3	48,6	49,7	44,7				105. 55. 11,33					77. 18. 12,91	B.	
	H. C. 21696.....	4. 43,4	42,0	43,9	41,2	43,2	37,5				114. 10. 3,46	29,418	48,4	44,3	63,80	85. 33. 21,42	B.	
	(g)	Bessel xi. 420...	3. 55,8	54,0	55,8	51,6	55,4	47,6	9,009	+4		117. 3. 54,13				70,66	88. 27. 18,95	B.
	\odot S.L.	3. 64,3	61,6	64,8	61,8	64,8	57,1	106. 42. 47,03				29,848	49,2	50,5	49,26	78. 5. 50,45	B.	
	\odot N.L.	2. 13,8	13,8	11,8	11,9	12,3	7,3	106. 10. 56,08							48,35	77. 33. 58,59	B.	
Apr. 24	Sirius R.	0. 63,4	63,9	62,4	63,1	63,9	58,2	3,204			177. 43. 24,38	30,049	47,2	49,2	149,30	106. 31. 6,76	B	
	Sirius.....	3. 61,4	60,9	63,0	61,0	63,1	55,6				135. 6. 23,04					106. 31. 6,50	B.	
	(h)	Bessel x. 169...	0. 49,8	50,8	48,6	48,6	48,4	44,5	3,204	+2½		110. 20. 48,60	30,091	46,4	41,6	57,45	81. 44. 0,21	B.
	(i)	Bessel x. 297...	2. 6,2	5,3	5,7	4,3	5,4	1,2				106. 42. 5,10				50,56	78. 5. 9,82	B.
	B.A.C. 3583.....	1. 44,7	44,7	44,2	43,8	44,0	39,3				107. 41. 43,78				52,36	79. 4. 50,30	B.	
	(k)(l)	Bessel x. 445...	4. 56,9	58,5	56,5	55,7	56,9				52,2	107. 49. 56,10				52,61	79. 13. 2,87	B.
	Bessel x. 603.....	2. 7,0	5,9	6,4	5,6	6,2	1,8				104. 57. 5,82				47,51	76. 20. 7,49	B.	
	Bessel x. 658.....	2. 36,0	35,3	36,0	35,3	35,6	31,3				113. 47. 35,43				64,78	85. 10. 54,37	B.	
	H. C. 20838.....	2. 54,0	53,6	55,2	53,2	53,5	48,7				114. 22. 53,60				66,12	85. 46. 13,88	B.	
	(k)(m)	Bessel x. 846...	4. 28,8	30,0	26,8	27,1	28,4				24,6	115. 9. 27,50				67,95	86. 32. 49,61	B.
	(n)	Bessel x. 910...	4. 16,5	19,0	16,3	15,8	17,2	13,2				115. 14. 17,17				68,14	86. 37. 39,47	B.
	(o)	Bessel x. 988...	0. 8,0	8,4	6,4	6,4	6,3	2,8				109. 40. 6,40	30,086	45,5	39,6	56,33	81. 3. 16,89	B.
	(h)	Bessel xi. 112...	3. 38,6	37,4	40,0	37,6	38,9	32,3				115. 43. 38,18				69,60	87. 7. 1,94	B.
	76 Leonis.....	3. 25,3	24,5	25,6	24,2	25,2	20,0	116. 8. 24,80							70,62	87. 31. 49,58	B.	
	(p)	Bessel xi. 243...	4. 29,8	26,9	30,4	28,3	29,0	22,8				117. 39. 28,75				74,52	89. 2. 57,43	B.
	Bessel xi. 329...	3. 54,1	52,3	55,4	53,0	54,6	47,3	116. 43. 53,55							72,11	88. 7. 19,82	B.	
	(n)(q)	γ Virginis....	4. 8,7	6,6	10,1	6,3	9,4	2,2				119. 14. 8,02	30,086	44,3	38,3	79,08	90. 37. 41,26	B.
	(r)	Hebe.....	1. 59,3	58,0	58,9	57,7	57,7	54,2				104. 1. 58,02				46,58	75. 24. 58,46	B.

ONE REVOLUTION of the MICROMETER = 20".850. ONE INTERVAL from the middle wire for an Equatorial Star = 16".6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8".00.

(a) Unsatisfactory observation, the mercury being agitated by wind. (b) 'This precedes the next about 1½ interval.' (c) The Pointer reading has been diminished 2". (d) Waving. The barometer not being read, the assumed reading is the mean between the readings 29".860 and 29".931, which were taken three hours before and after noon. (e) 'Beautifully steady.' (f) The bisection not good, a strong south wind blowing. (g) Clouded and faint. (h) Misty sky. (i) 'A star preceding this.' (k) Negative correction for Runs. (l) Clouded: scarcely visible. (m) Diffused. (n) Cloudy. (o) Very faint. (p) Very faint from mist. (q) Bad definition. (r) 'Too faint for satisfactory observation.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"		r.		"	Inch.	o	o	"	o	"
Apr. 24	) N.L.....	3. 57,5	55,0	57,5	56,3	56,4	50,7	+5,9	9,628	-2	121. 29. 10,50	30,086	44,3	38,3	85,85	92. 52. 50,51	B.
	) N.L.....	...	...	...	...	...	...		9,428	-1	121. 29. 11,47					92. 52. 51,48	B.
	) N.L.....	...	...	...	...	...	...		9,262		121. 29. 11,72					92. 52. 51,73	B.
	) N.L.....	...	...	...	...	...	...		9,100	+1	121. 29. 11,87					92. 52. 51,88	B.
	) N.L.....	...	...	...	...	...	...		8,953	+2	121. 29. 11,69					92. 52. 51,70	B.
	Spica.....	3. 33,7	31,4	34,0	31,2	34,3	27,7				128. 58. 32,73				115,25	100. 22. 42,14	B.
Apr. 25	⊙ N.L.....	1. 27,3	24,9	24,9	24,7	24,5	21,9	+7,2	10,168		105. 11. 21,55	29,956	48,8	56,0	46,31	76. 34. 21,08	B.
	⊙ S.L.....	3. 15,9	13,2	14,6	13,6	13,1	7,9		10,168		105. 43. 10,33				47,20	77. 6. 10,75	B.
	(a) λ Ursæ Majoris R.	2. 21,6	21,3	19,3	20,2	22,4	17,5		11,231		237. 51. 55,26	30,053	48,3	45,2	8,90	46. 20. 16,42	B.
	λ Ursæ Majoris..	3. 17,9	17,3	18,0	16,4	18,4	12,7		11,231	+2	74. 57. 52,48					46. 20. 14,60	B.
	Bessel x. 240....	2. 24,1	23,3	22,8	22,6	24,5	19,2				106. 32. 23,33				49,83	77. 55. 26,38	B.
	(b) Bessel x. 338....	3. 26,9	26,1	26,3	26,8	27,2	23,2				113. 48. 26,90				64,25	85. 11. 44,37	B.
	Bessel x. 422....	4. 38,2	37,4	39,9	36,9	40,5	32,5				112. 54. 38,68				62,27	84. 17. 54,17	B.
	Bessel x. 474....	3. 54,2	53,2	54,6	53,9	54,1	47,6				105. 43. 53,87				48,43	77. 6. 55,52	B.
	Bessel x. 552....	0. 23,6	25,3	21,3	22,3	24,3	19,5				111. 55. 22,82				60,16	83. 18. 36,20	B.
	Bessel x. 593....	1. 61,0	62,6	60,5	60,6	61,4	57,0				115. 2. 1,00		43,6		67,29	86. 25. 21,51	B.
	H. C. 21015.....	3. 11,8	12,2	11,2	10,8	11,6	6,0				110. 8. 11,37				56,72	81. 31. 21,31	B.
	Bessel x. 938....	2. 27,5	27,7	25,5	26,4	28,9	23,7				113. 27. 27,20				63,68	84. 50. 44,10	B.
	Bessel x. 1043....	1. 27,6	28,9	25,8	26,4	27,0	22,7				115. 26. 26,75				68,25	86. 49. 48,22	B.
	Bessel xi. 18....	1. 34,6	36,2	32,9	32,4	35,5	29,2				119. 36. 33,83				79,18	91. 0. 6,23	B.
	(c) Bessel xi. 77....	1. 20,6	22,8	19,6	20,3	21,4	16,6				109. 51. 20,53	29,950	47,0	43,2	56,02	81. 14. 29,77	B.
	Bessel xi. 329....	3. 53,5	53,6	53,7	52,8	54,7	47,7				116. 43. 53,60				71,25	88. 7. 18,07	B.
	Bessel xi. 420....	3. 49,8	49,0	50,3	48,5	51,4	43,7				117. 3. 49,70				72,09	88. 27. 15,01	B.
	(d) * R. 11 ^h . 30 ^m . 54 ^s	0. 48,2	49,6	46,3	46,9	48,5	43,6				112. 0. 47,37				60,39	83. 24. 0,98	B.
	H. C. 22079.....	...	...	...	...	...	...		12,562		111. 59. 53,95				60,36	83. 23. 7,53	B.
	Hebe.....	4. 32,9	34,0	29,6	30,2	32,8	28,9				103. 59. 32,48	29,976	45,9	41,5	45,73	75. 22. 31,43	B.
	Spica.....	3. 33,3	32,4	32,8	31,2	34,8	28,5				128. 58. 33,02			40,3	114,35	100. 22. 40,59	B.
	ζ Virginis.....	1. 14,0	13,8	11,7	11,5	13,2	8,0				118. 26. 12,32				76,23	89. 49. 41,77	B.
	(e)) N.L.....	3. 14,6	14,3	16,0	12,6	16,3	8,8		9,870	-2	126. 3. 23,20				101,46	97. 27. 17,88	B.
	) N.L.....	...	...	...	...	...	...		9,696	-1	126. 3. 23,88					97. 27. 18,56	B.
	) N.L.....	...	...	...	...	...	...		9,539		126. 3. 24,16					97. 27. 18,84	B.
	) N.L.....	...	...	...	...	...	...		9,388	+1	126. 3. 24,28					97. 27. 18,96	B.
	) N.L.....	...	...	...	...	...	...		9,237	+2	126. 3. 24,36					97. 27. 19,04	B.
Apr. 26	(f) Bessel ix. 1266..	3. 44,1	44,0	44,3	44,6	46,2	38,2				110. 58. 44,47	30,113	48,8	45,7	58,27	82. 21. 55,96	B.
	H. C. 19857.....	1. 59,3	60,7	58,0	57,9	59,3	53,9				110. 11. 58,67				56,71	81. 35. 8,60	B.
	Bessel x. 161....	1. 19,8	20,3	16,3	18,0	18,8	14,2				110. 21. 18,22				57,02	81. 44. 28,46	B.
	Bessel x. 240....	2. 22,2	21,8	20,9	20,4	22,5	16,4				106. 32. 21,27				49,88	77. 55. 24,37	B.
	(g) Bessel x. 396....	1. 63,6	64,2	62,3	61,5	63,2	57,1				109. 57. 2,47				56,22	81. 20. 11,91	B.
Apr. 27	(h) ⊙ S.L.....	0. 32,1	34,2	30,6	33,2	33,0	29,6		12,886		105. 4. 32,08	30,140	47,7	45,4	47,42	76. 27. 32,72	B.
	⊙ N.L.....	3. 41,8	45,4	39,9	45,4	43,8	36,4		12,886		104. 32. 42,83				46,53	75. 55. 42,58	B.
	Bessel xi. 50....	3. 54,0	53,1	53,3	52,8	54,1	46,5				118. 53. 53,23	30,158	45,3	38,7	78,23	90. 17. 24,68	B.
	75 Leonis.....	1. 41,0	41,0	38,2	40,4	39,4	35,0				115. 46. 39,57				70,02	87. 10. 2,81	B.
	Bessel xi. 295....	0. 12,3	13,3	9,3	11,7	10,4	7,0				109. 50. 10,72				56,90	81. 13. 20,84	B.
	(i) Bessel xi. 777....	0. 47,2	49,2	45,1	47,9	46,3	42,8				114. 40. 46,60				67,57	86. 4. 7,19	B.
	Bessel xi. 867....	3. 43,9	42,4	43,9	43,3	43,6	38,0				122. 8. 43,40				88,11	93. 32. 24,73	B.
	Bessel xi. 940....	3. 27,0	26,2	26,3	26,0	26,6	21,9				113. 33. 26,50				64,78	84. 56. 44,50	B.
	Bessel xi. 997....	3. 35,2	33,8	34,7	33,8	35,8	27,5				124. 18. 34,33				95,65	95. 42. 23,20	B.
	10 Virginis.....	2. 18,1	18,0	16,1	18,0	16,6	12,4				115. 52. 17,08				70,25	87. 15. 40,55	B.
	(k) β Corvi R.....	0. 36,2	37,9	35,4	37,3	37,6	32,5		7,454		171. 41. 29,38	30,154	42,7	35,3	218,62	112. 34. 12,02	B.
	β Corvi.....	2. 22,2	21,9	21,3	20,9	23,3	17,3		7,454	+2½	141. 8. 14,41					112. 34. 6,25	B.
	(l)) N.L.....	0. 34,9	34,8	32,7	32,3	33,9	28,2		10,997	-2	133. 40. 16,38	30,166	41,7	36,5	143,34	105. 4. 52,94	B.
	) N.L.....	...	...	...	...	...	...		10,923	-1	133. 40. 15,84					105. 4. 52,40	B.
	) N.L.....	...	...	...	...	...	...		10,821		133. 40. 15,81					105. 4. 52,37	B.
	) N.L.....	...	...	...	...	...	...		10,684	+1	133. 40. 16,43					105. 4. 52,99	B.
	) N.L.....	...	...	...	...	...	...		10,530	+2	133. 40. 17,32					105. 4. 53,88	B.

ONE REVOLUTION of the MICROMETER = 20'',850. ONE INTERVAL from the middle wire for an Equatorial Star = 16'',6.
 ASSUMED CO-LATITUDE = 37° 47' 8'',00.

(a) The mercury disturbed. (b) Faint. (c) 'One of Mag. 5.6 and of less N.P.D. following by 20'', viz. B.A.C. 3337. (d) This star was noticed in taking the transit of H. C. 22079 on April 25. (e) A mist had suddenly come over, which made the Moon faint at intervals. (f) Faint from day-light. (g) Cloudy at this time and during the remainder of the night. (h) Great motion. (i) 'One of Mag. 9 and less N.P.D. follows 10''. (k) 'Not well defined, but pretty good observation.' (l) Very faint at intervals from cloud.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						"	"		"	"	"	
Apr. 29	(a) ☉ N.L..... ☉ S.L.....	0.33,7 2.21,7	37,6 23,5	31,4 20,0	36,5 22,3	34,0 21,4	28,3 16,3	+7,2	11,761 11,761	+2½ +4	103.54.57,79 104.26.46,21	30,310	47,6	51,2	45,20 46,08	75.17.56,21 75.49.45,51	B. B.		
May 2	☉ S.L..... ☉ N.L..... (b) Sirius R..... Sirius..... Zenith Point.... Bessel xi. 50.... 76 Leonis. (c) H. C. 21696.... (c)(d) Bessel xi. 345... Bessel xi. 420... H. C. 22038.... Bessel xi. 687... Bessel xi. 701... H. C. 22440.... Bessel xi. 895... Bessel xi. 959... H. C. 22755.... (c)(e) Hebe..... (f) Polaris SP. R.... (f) Polaris SP..... (g) Iris	2.10,8 0.24,0 2.10,8 0.7,3 4.61,0 3.55,0 3.26,2 4.62,2 4.33,9 3.51,9 4.37,0 4.13,3 ... 3.48,5 1.30,8 3.14,9 0.53,9 4.54,0 2.11,6 0.27,6 1.5,9	13,8 28,0 11,6 11,0 62,0 53,9 25,5 63,4 35,9 50,2 35,1 11,7 ... 47,7 52,0 14,1 55,9 55,3 10,6 26,0 5,8	9,9 21,4 10,4 5,9 58,2 54,3 24,9 59,6 31,3 52,2 37,6 13,5 ... 48,5 29,6 14,4 51,6 51,9 7,4 24,6 6,7	11,9 25,6 12,3 7,6 62,2 53,6 25,8 62,5 31,3 51,1 36,1 12,4 ... 47,4 30,4 13,1 52,9 52,3 11,8 23,4 5,4	10,8 19,6 13,2 9,4 57,9 55,3 25,9 61,4 33,2 51,8 37,4 13,3 ... 49,2 30,7 15,1 53,6 54,4 8,4 25,4 5,6	4,9 19,6 6,7 3,7 57,9 47,4 19,9 57,3 29,7 44,0 30,2 6,4 ... 41,5 24,8 7,3 49,2 49,3 7,4 21,8 3,0	+8,8 +7,2	10,688 10,688 6,386 6,386 10,265 ... 12,189 ... 9,112 13,964 13,964 ... 10,689 10,689 ... 10,689										

ONE REVOLUTION of the MICROMETER = 20".850. ONE INTERVAL from the middle wire for an Equatorial Star = 16".6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8".00.

(a) Taken hurriedly. (b) Flaring. (c) Negative correction for Runs. (d) Disturbance. (e) 'Two other objects followed.'
 (f) Disturbed mercury. Times by Molyneux, 13h. 9m. 52s. and 13h. 11m. 33s. By a Circle transit of Spica, Molyneux was 3m. 9s. fast. (g) Extremely faint.
 (h) Cloudy. (i) Previously cloudy. (k) Very faint. (l) Too cloudy for seeing Bessel xiii. 726, which is of Mag. 9.10. (m) Faint from cloud,
 but could be well observed. (n) Faint. (o) Just after the sky had cleared. (p) This is 2 1661. (q) Extremely faint and sometimes
 disappearing. (r) Clouds passing.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"		r.		o' " "	Inch.	o	o	"	o' " "	
May 15	(a) o Virginis R.....	1. 12,9	12,9	9,7	11,3	11,8	8,5	+8,5	8,016		203. 46. 52,89	29,968	46,0	40,8	54,77	80. 26. 4,30	B.
	o Virginis	2. 16,6	16,1	15,6	14,5	14,9	11,2		8,016	+2½	109. 2. 56,98					80. 26. 5,33	B.
May 17	(b)(c) ⊙ N.L.	3. 20,6	19,4	17,6	17,3	18,9	13,4	+5,5	11,402	+½	99. 2. 49,33	29,854	48,8	58,5	36,62	70. 25. 39,39	B.
	(d) ⊙ S.L.	4. 56,0	55,3	52,4	51,7	56,1	49,5		11,402	+1¾	99. 34. 24,70				37,36	70. 57. 15,50	B.
May 18	(b) 78 Ursæ Maj. R..	3. 20,4	18,8	18,0	17,9	20,7	16,9		11,869	+2	251. 22. 39,47	29,717	51,3	48,7	5,04	32. 49. 18,05	B.
	78 Ursæ Majoris.	2. 43,1	43,7	41,4	39,6	46,4	38,4		11,869	+4	61. 27. 7,35					32. 49. 15,75	B.
	Polaris SP. R....	2. 18,5	18,5	17,4	16,2	17,2	12,3		14,062		285. 40. 52,53				47,46	-1. 29. 37,43	B.
	Polaris SP.	0. 22,4	22,4	19,1	16,9	22,1	16,8		14,062		27. 8. 54,92					-1. 29. 39,10	B.
May 20	β Virginis.	0. 10,6	11,4	6,4	7,9	11,2	5,2				116. 0. 8,82	29,700	55,2	53,2	67,46	87. 23. 29,72	B.
	γ N.L.	1. 14,7	14,0	10,6	12,4	13,0	9,3			-2	115. 1. 19,03				65,17	86. 24. 37,64	B.
	δ N.L. ....	...	...	...	...	...	...		9,893	-1	115. 1. 18,01					86. 24. 36,62	B.
	ε N.L. ....	...	...	...	...	...	...		9,749		115. 1. 17,78					86. 24. 56,39	B.
	ζ N.L. ....	...	...	...	...	...	...		9,613	+1	115. 1. 17,41					86. 24. 36,02	B.
	η N.L. ....	...	...	...	...	...	...		9,478	+2	115. 1. 17,03					86. 24. 35,64	B.
	η Virginis.	1. 38,4	37,4	34,8	35,3	37,5	32,1			+4	118. 26. 36,23				73,57	89. 50. 3,24	B.
	γ Virginis n.	4. 8,5	6,0	6,9	5,3	8,9	1,4				119. 14. 6,92				75,70	90. 37. 36,06	B.
	Polaris SP. R....	2. 15,1	14,2	13,1	12,2	12,8	8,7		13,811		285. 40. 53,65	29,706	52,2	49,3	47,38	-1. 29. 38,47	B.
	(f) Polaris SP.	0. 18,0	16,9	13,3	12,4	15,9	11,8		13,811		27. 8. 55,24					-1. 29. 38,70	B.
	(g) Iris	2. 13,1	10,0	10,3	9,3	11,8	6,8				140. 52. 10,62	29,712	49,6	45,9	206,91	112. 17. 50,97	B.
May 21	(h) ⊙ S.L.	4. 37,2	34,4	36,4	34,2	36,3	28,4		14,846		98. 42. 54,29	29,739	53,4	55,9	36,20	70. 5. 43,93	B.
	⊙ N.L.	2. 56,8	54,3	53,6	52,5	54,5	47,4		14,846		98. 11. 12,68				35,47	69. 34. 1,59	B.
	γ Virginis.	4. 12,0	11,0	10,6	9,8	12,3	4,5				119. 14. 10,80	29,661	53,3	49,8	76,13	90. 37. 40,37	B.
	δ N.L.	0. 49,9	51,5	45,4	48,0	50,2	43,4			-2	119. 45. 54,65				77,60	91. 9. 25,69	B.
	(i) δ N.L. ....	...	...	...	...	...	...		9,828	-1	119. 45. 55,03					91. 9. 26,07	B.
	ε N.L. ....	...	...	...	...	...	...		9,573		119. 45. 57,12					91. 9. 28,16	B.
	ζ N.L. ....	...	...	...	...	...	...		9,410	+1	119. 45. 57,30					91. 9. 28,34	B.
	η N.L. ....	...	...	...	...	...	...		9,266	+2	119. 45. 57,07					91. 9. 28,11	B.
	(k) θ Virginis.	0. 38,5	38,3	34,3	35,7	38,8	32,2				123. 20. 36,42				88,60	94. 44. 18,46	B.
	Zenith Point.	0. 27,7	26,3	22,9	24,6	25,3	22,6	+4,0	11,454		66. 24. 54,56						B.
May 22	Spica R.	2. 48,0	46,3	46,2	47,0	47,2	41,3	+5,5	14,715		183. 51. 8,21	29,503	54,4	52,0	109,87	100. 22. 44,22	T.
	Spica.	0. 19,9	20,3	16,1	17,3	18,8	13,9		14,715		128. 58. 39,46					100. 22. 42,77	T.
	(l) 81 Virginis.	4. 13,9	11,9	12,5	11,9	12,2	15,8		14,715		125. 42. 35,49				96,15	97. 6. 25,08	T.
	δ N.L.	3. 36,0	33,0	33,6	31,0	35,3	27,1			-2	124. 23. 39,43	29,500		51,9	91,34	95. 47. 24,21	T.
	ε N.L. ....	...	...	...	...	...	...		9,900	-1	124. 23. 38,49					95. 47. 23,27	T.
	ζ N.L. ....	...	...	...	...	...	...		9,790		124. 23. 37,71					95. 47. 22,49	T.
	η N.L. ....	...	...	...	...	...	...		9,619	+1	124. 23. 38,18					95. 47. 22,96	T.
	θ N.L. ....	...	...	...	...	...	...		9,488	+2	124. 23. 37,79					95. 47. 22,57	T.
	κ Virginis R.	0. 42,1	42,5	37,9	40,2	42,0	36,1		13,778		184. 39. 21,50				106,24	99. 34. 27,30	T.
	κ Virginis.	1. 48,2	45,0	44,1	43,7	45,1	38,5		13,778		128. 10. 25,66					99. 34. 25,34	T.
	λ Virginis R.	0. 58,8	58,2	55,2	58,0	59,3	52,5		3,200		181. 33. 18,95				121,45	102. 40. 45,06	T.
	(d) λ Virginis.	4. 11,1	12,7	6,1	7,4	9,4	5,0		3,200		131. 16. 30,25					102. 40. 45,14	T.
	Iris	2. 17,2	15,6	15,0	14,7	17,1	11,4				140. 42. 15,58	29,510	53,6	50,0	201,58	112. 7. 50,60	T.
May 24	(m) ⊙ N.L.	0. 33,0	32,0	29,4	30,0	30,4	24,0		7,997		97. 36. 11,64	29,399	58,0	64,3	33,70	68. 58. 58,78	T.
	Arcturus R.	0. 46,0	44,1	40,3	40,7	43,7	38,5		10,314		214. 10. 35,78	29,422	53,2	51,7	36,04	70. 2. 2,82	T.
	(d) Arcturus.	4. 20,8	19,6	16,7	16,0	15,8	12,5		10,314		98. 39. 10,23					70. 1. 59,71	T.
	B.A.C. 4772.	0. 9,3	9,0	4,7	5,7	7,9	0,9				129. 35. 6,27				112,51	100. 59. 12,22	T.
	(n) B.A.C. 4787.	1. 45,0	44,0	43,4	40,0	45,0	37,1			+2¾	131. 16. 42,48				121,19	102. 40. 57,11	T.
	Bessel xiv. 498. .	1. 10,0	8,9	7,0	6,9	7,6	3,6				129. 41. 7,53				113,00	101. 5. 13,97	T.
	π Bootis np.	3. 13,8	10,2	12,9	9,5	12,7	5,8				101. 33. 11,40				40,21	72. 56. 5,05	T.
May 25	⊙ S.L.	2. 53,9	52,0	52,5	51,5	51,7	47,5	+4,9	13,053		97. 56. 48,32	29,484	58,0	62,0	34,42	69. 19. 36,96	T.
	⊙ N.L.	1. 19,0	18,8	15,9	16,9	16,0	11,1		13,053		97. 25. 12,84				33,71	68. 48. 0,77	T.

ONE REVOLUTION of the MICROMETER = 20",850. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED Co-LATITUDE = 37°. 47'. 8",00.

(a) Seen faintly through cloud. (b) Cloudy. (c) Without the dark glass. (d) Negative correction for Runs. (e) Times by Molyneux, 13h. 9m. 40s and 13h. 11m. 0s. M fast on H, 4m. 29s. (f) Times by M, 13h. 7m. 48s and 13h. 9m. 21s. M fast by a Circle transit of Spica, 3m. 28s. (g) Very faint. The only object in the field. (h) Very unsteady. (i) Very faint at this wire. (k) Misty cloud obscuring the sky. (l) The Pointer reading has been diminished 5'. (m) S.L. hid by cloud. (n) 'A faint star of greater N.P.D. preceded.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refracti- on.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.		"	"	"	
		"	"	"	"	"	"						"	"					
May 27	(a) ☉ N.L..... Zenith Point.....	4. 23,7 0. 32,8	23,6 30,7	19,1 27,9	19,5 29,1	20,9 29,6	15,0 26,6	+4,9	9,995 11,715		97. 4. 20,32 66. 24. 53,78	29,662	57,0	62,4	33,42	68. 27. 7,96	T. T.		
May 28	☉ S.L..... (b) ☉ N.L..... Polaris SP. R..... (c) Polaris SP.... (a) Spica..... (a) Bessel xiv. 792.. (d) Bessel xiv. 805 np. Bessel xiv. 819.. Bessel xiv. 1031.. Σ 1908..... α Aquilæ..... (a) β Aquilæ.....	1. 64,5 0. 30,7 2. 9,4 4. 64,3 3. 33,5 4. 23,4 1. 38,5 4. 15,9 3. 15,0 4. 35,8	62,8 29,2 7,1 63,0 39,2 22,0 35,9 9,9 10,2 34,0	62,3 27,2 6,8 58,3 34,0 18,1 36,6 14,0 12,0 32,1	63,0 27,9 5,7 59,2 34,7 19,6 34,3 11,0 10,2 31,6	62,2 27,9 5,8 61,6 38,0 20,3 37,1 13,2 10,7 33,8	56,8 24,0 1,1 56,2 31,6 15,0 30,7 5,0 4,0 26,8		12,916 12,916 13,313 13,313 6,100 5,631 										

ONE REVOLUTION of the MICROMETER = 20",850. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Negative correction for Runs. (b) Bisected hurriedly: delay by clouds. (c) No definition and extremely unsteady. Times by Molyneux 13^h. 7^m. 37^s and 13^h. 8^m. 37^s. By a Circle transit of Spica Molyneux was 3^m. 30^s fast. (d) This is Σ 1885. (e) Observed hurriedly. (f) Σ 1781.
 (g) This is Σ 271. 'Three objects of less N.P.D. followed, one of which was very faint.' (h) Extremely faint. (i) 'Good.' (k) Faint from clouds: doubtful observation. (l) Extremely unsteady. Microscope B had been exposed to the Sun. (m) Good observation: the Planet of Mag. 9.10.
 (n) 'Good: no object near.' (o) Times by Molyneux, 1^h. 11^m. 30^s and 1^h. 13^m. 0^s. By a Circle transit of a Coronæ Molyneux was 3^m. 40^s fast.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						Inch.	"			
June 3	(a) ☉ N.L.....	2.66,2	64,0	63,8	63,6	65,6	55,4	+3,4	10,361	+2 $\frac{3}{4}$	96. 2. 56,64	30,340	65,2	68,5	32,41	67. 25. 42,00	T.
	☉ S.L.....	4.37,0	31,9	35,6	33,7	36,2	25,0		10,361	+4 $\frac{1}{4}$	96. 34. 27,70				33,11	67. 57. 13,76	T.
	Zenith Point....	0.17,9	13,9	11,0	14,0	11,7	10,9		10,874		66. 24. 55,05						T.
	α ² Libræ.....	0.42,8	40,9	37,8	39,3	41,4	33,2		10,835		134. 0. 21,91	30,278	58,0	54,8	140,78	105. 24. 55,64	T.
	(b) Parthenope.....	1.11,4	7,7	6,1	7,1	8,7	0,7		10,021		128. 21. 6,63	30,276	57,2	53,6	109,45	99. 45. 9,03	T.
	Bessel xv. 132....	3.19,4	14,6	16,0	15,0	17,1	7,9				128. 38. 15,37				110,77	100. 2. 19,09	T.
	(c) Iris.....	0.41,2	40,3	36,4	38,9	40,0	33,0				139. 40. 38,38				192,33	111. 6. 3,66	T.
	α Coronæ R.....	1.20,9	17,4	15,0	17,0	17,4	13,6		10,972		221. 25. 56,76				27,30	62. 46. 33,59	T.
	α Coronæ.....	4.15,1	9,0	13,7	10,8	11,0	4,4		10,972		91. 23. 50,88					62. 46. 31,13	T.
	α Serpentiis.....	2.45,5	40,3	40,0	40,7	41,1	34,5				111. 42. 40,65				59,13	83. 5. 52,73	T.
	(d) Petersen's Comet	0.37,6	34,1	31,5	33,0	32,1	29,8			+3	45. 0. 36,28	30,247	55,0	50,0	23,12	16. 22. 26,11	T.
June 4	☉ S.L.....	3.23,8	20,8	21,6	23,1	22,8	13,1		12,986		96. 27. 18,97	30,186	62,6	67,0	32,88	67. 50. 4,80	T.
	☉ N.L.....	1.49,3	50,0	44,0	48,8	48,6	40,0		12,986		95. 55. 44,72				32,19	67. 18. 29,86	T.
	(e) Bessel xiii. 515..	2.47,2	45,6	44,0	45,9	45,5	39,0			+2 $\frac{1}{4}$	115. 27. 44,89	30,009	59,4	59,5	66,03	86. 51. 3,87	T.
	84 Virginis.....	3.48,0	47,2	46,1	48,5	47,6	39,9				114. 18. 46,65				63,41	85. 42. 3,01	T.
	Bessel xiii. 670..	4.34,6	33,0	34,1	32,3	34,0	25,5				112. 44. 32,77				60,04	84. 7. 45,76	T.
	(f) η Bootis R.....	2.38,5	35,2	32,4	36,4	37,2	30,3		12,103	+2	213. 21. 51,24				37,33	70. 50. 49,14	T.
	η Bootis.....	3.46,2	42,9	43,2	43,5	45,4	38,0		12,103	+4 $\frac{1}{4}$	99. 28. 0,72					70. 50. 51,00	T.
	(g) Arcturus R.....	4.66,2	65,6	58,7	64,2	63,0	59,0		8,249		214. 10. 39,29	30,098	58,6	56,8	36,48	70. 2. 0,24	T.
	Arcturus.....	3.37,0	33,0	33,7	33,1	33,9	27,0		8,249		98. 39. 9,86					70. 1. 59,29	T.
	Bessel xiv. 280..	3.35,9	32,7	33,4	31,3	34,0	26,3				130. 53. 32,67				120,57	102. 17. 46,19	T.
	Bessel xiv. 424..	2.60,1	58,0	58,1	57,6	59,6	52,0				129. 47. 57,90				114,95	101. 12. 5,80	T.
	ε Bootis R.....	0.50,6	49,0	43,3	48,7	49,0	44,9		11,892		221. 55. 8,22				26,37	62. 17. 21,20	T.
	ε Bootis.....	0.23,3	19,9	17,8	18,9	19,8	14,2		11,892	+1 $\frac{1}{2}$	90. 54. 39,75					62. 17. 19,07	T.
	(h) Parthenope.....	0.33,0	31,0	27,1	29,2	29,7	23,8				128. 20. 29,02	30,087	57,4	54,8	108,46	99. 44. 30,43	T.
	(i) Iris.....	0.43,9	41,8	39,5	39,8	43,0	36,4				139. 35. 40,80				189,70	111. 1. 3,45	T.
	(k) Polaris R.....	2.11,0	5,9	6,3	5,5	5,5	1,0		11,202		282. 41. 41,05	29,977	59,3	60,1	42,01	1. 29. 39,99	T.
	Polaris.....	3.38,5	33,2	34,5	31,4	36,5	28,6		11,202		30. 8. 9,41					1. 29. 40,35	T.
June 5	☉ N.L.....	3.65,0	63,0	62,1	63,3	63,1	54,5		10,363		95. 48. 54,71	29,912	65,0	71,1	31,49	67. 11. 39,15	T.
	☉ S.L.....	0.38,3	37,8	32,3	34,9	35,1	27,9		10,363		96. 20. 26,88				32,17	67. 43. 12,00	T.
June 7	Bessel xiv. 557..	1.11,1	8,1	6,0	7,1	9,0	0,9	+4,0			127. 41. 7,18	29,699	54,0	52,5	104,69	99. 5. 5,48	T.
	(g)(l) Parthenope.....	4.32,2	29,4	25,1	26,1	27,9	21,8				128. 19. 27,03	29,700	53,2	51,8	107,65	99. 43. 28,29	T.
	(m)(n) Iris.....	0.45,6	42,2	42,9	42,1	44,1	37,5				139. 20. 42,62				185,58	110. 46. 1,81	T.
	(n) Bessel xv. 428..	3.43,0	38,1	41,0	39,5	40,1	33,2			+2	132. 23. 39,62				128,69	103. 48. 1,92	T.
	H. C. 28389.....	0.63,1	60,2	57,6	58,2	59,4	53,1				135. 5. 58,73				146,73	106. 30. 39,07	T.
	H. C. 28518.....	1.33,2	27,8	27,9	26,2	28,1	23,2			+2 $\frac{1}{4}$	139. 41. 27,63				189,55	111. 6. 50,79	T.
	Bessel xv. 708..	3.29,5	22,2	26,4	23,5	26,8	18,7				133. 53. 24,98				138,17	105. 17. 56,76	T.
	(o) Petersen's Comet	2.58,2	51,5	52,1	50,4	52,5	49,2			+3	46. 2. 54,67	29,707	50,3	48,8	21,55	17. 24. 46,73	T.
	B.A.C. 4777.....	0.69,4	68,2	64,5	66,7	66,2	59,5				131. 16. 5,90	30,068	57,7	56,5	122,58	102. 40. 22,09	T.
	(p) Bessel xiv. 498..	0.71,6	68,9	65,0	67,9	66,4	59,7				129. 41. 6,73				114,34	101. 5. 14,68	T.
June 8	Bessel xiv. 577..	1.54,4	52,3	51,2	50,1	53,0	44,8				132. 1. 51,22				126,89	103. 26. 11,72	T.
	H. C. 26821.....	4.35,2	31,0	32,8	31,7	33,5	25,0				134. 49. 32,13				145,09	106. 14. 10,83	T.
	α ² Libræ.....	0.28,4	27,1	22,1	25,2	25,8	20,1				134. 0. 24,83				139,33	105. 24. 57,77	T.
	(g) Parthenope.....	4.24,0	22,9	16,5	20,6	19,9	14,9				128. 19. 19,72	30,075	57,1	54,7	108,35	99. 43. 21,68	T.
	(q) Iris.....	0.42,5	41,1	38,3	39,1	40,6	34,0				139. 15. 39,35				185,84	110. 40. 58,80	T.
	H. C. 29968.....	0.11,8	8,5	6,4	6,0	8,2	3,0				136. 55. 7,33	30,079	51,9	49,7	164,20	108. 20. 5,14	T.
	H. C. 30112.....	3.67,2	61,4	66,0	63,1	64,3	57,9				136. 34. 3,87				161,12	107. 58. 58,60	T.
	(r) Petersen's Comet	4.17,1	10,0	14,0	11,1	11,6	6,9				46. 24. 12,35		50,3	49,0	21,40	17. 46. 4,56	T.
	H. C. 30641.....	0.43,5	43,2	39,8	40,5	41,3	35,5			+2	137. 40. 40,52				171,49	109. 5. 45,62	T.
	H. C. 30781.....	1.15,5	12,0	12,5	11,0	12,1	7,0				136. 16. 11,85				158,81	107. 41. 4,27	T.
	H. C. 30896.....	2.15,5	12,2	12,9	9,7	12,1	6,1				135. 42. 11,72				154,15	107. 6. 59,48	T.
	(s) H. C. 31042.....	4.20,9	15,9	19,5	16,1	17,6	12,3				136. 29. 17,62				160,66	107. 54. 11,89	T.
	(p) H. C. 31170.....	4.10,2	5,0	8,4	6,0	7,6	0,9				136. 24. 6,90				159,93	107. 49. 0,44	T.
June 10	☉ S.L.....	3.50,2	47,0	47,1	47,0	48,6	38,7		14,690		95. 52. 9,14	30,050	63,6	69,7	31,79	67. 14. 54,54	T.
	☉ N.L.....	2.15,4	12,5	11,0	12,1	11,7	4,4		14,690		95. 20. 33,69				31,11	66. 43. 18,41	T.

ONE REVOLUTION of the MICROMETER = 20"850. ONE INTERVAL from the middle wire for an Equatorial Star = 16".6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Observed hurriedly. (b) The Planet bright and no object near. (c) 'Good.' (d) The third comet discovered by M. Petersen. The Comet was faint, but the bisection was considered good. Correction applied for change of N.P.D. = -1",41. (e) 'Very faint.' Probably the companion, Bessel xiii. 516, which is much fainter, was not visible. (f) The mercury greatly disturbed. (g) Negative correction for Runs. (h) The Planet faint, but the observation not uncertain. (i) Faint and disappearing at times. (k) Excessively faint. Times by Molyneux, 1h. 9m. 10s and 1h. 11m. 0s. By Circle transits June 3 and 7, Molyneux was 3m. 41s fast. (l) The Planet bright and the observation satisfactory. (m) Seen only at intervals and the bisection doubtful. (n) The Pointer reading has been diminished by 1'. (o) 'The nucleus pretty well seen, but difficult to bisect.' The correction applied for change of N.P.D. = -2",34. (p) Very faint. (q) 'Satisfactory.' (r) Much diffused. (s) The Pointer reading was greater by 10'.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"	"	r.		"	Inch.	o	o	"	o	"
June 10	(a) Zenith Point....	4. 56,0	52,9	48,2	51,1	49,8	47,9	+5,1	9,849		66. 24. 54,39						T.
June 11	(b) ☉ N.L.....	0. 67,1	67,7	62,6	65,9	67,7	59,0	+4,0	9,656		95. 16. 12,32	29,800	68,0	72,0	30,63	66. 38. 56,56	T.
	☉ S.L.....	2. 37,9	35,9	33,4	34,7	36,5	27,9		9,656	+2	95. 47. 42,25				31,29	67. 10. 27,15	T.
June 13	☉ S.L.....	0. 10,1	8,3	4,2	9,0	7,6	0,4		10,261		95. 40. 1,18	29,573	62,3	62,5	31,48	67. 2. 46,27	T.
	☉ N.L.....	3. 38,8	34,0	34,9	34,0	35,6	27,7		10,261		95. 8. 29,21				30,81	66. 31. 13,63	T.
	H. C. 28752.....	2. 16,3	12,1	13,9	12,2	15,1	9,3				141. 47. 13,45	29,648	54,0	52,0	216,87	113. 13. 3,93	T.
	θ Libræ.....	2. 29,6	24,8	25,6	25,3	26,7	21,0			+1½	134. 52. 25,72				144,75	106. 17. 4,08	T.
	(a) H. C. 29038.....	4. 39,4	39,2	35,9	38,3	37,2	31,9				139. 9. 36,93				183,12	110. 34. 53,66	T.
	β Scorpii.....	3. 23,9	21,0	21,4	21,3	21,3	14,6				137. 58. 21,02				170,82	109. 23. 25,45	T.
	(c) B.A.C. 5330.....	...	...	...	...	...	...		10,743		137. 58. 5,53				170,79	109. 23. 9,93	T.
	B.A.C. 5408.....	3. 52,1	46,7	50,1	49,0	48,2	42,8				136. 43. 48,65				159,45	108. 8. 41,71	T.
	B.A.C. 5436.....	0. 43,1	41,7	38,8	40,3	40,7	35,5				138. 25. 40,10	29,656	53,3	51,2	175,69	109. 50. 49,40	T.
	χ Ophiuchi.....	1. 46,5	43,1	43,3	42,6	44,0	38,7				136. 41. 43,27				159,46	108. 6. 36,34	T.
June 15	(d) H. C. 27972.....	0. 25,0	22,5	19,7	21,5	20,5	15,5	+4,4			141. 0. 20,83	29,836	51,1	44,3	210,36	112. 26. 5,33	T.
	H. C. 28212.....	2. 16,3	14,2	12,5	13,2	13,9	9,7				138. 47. 13,62				183,13	110. 12. 30,89	T.
	H. C. 28345.....	3. 12,2	9,3	10,5	8,3	10,0	3,1				135. 13. 9,37				150,62	106. 37. 54,13	T.
	H. C. 28453.....	0. 20,3	19,3	15,0	16,7	17,0	13,3				135. 45. 16,98				154,83	107. 10. 5,95	T.
	Bessel xv. 683...	3. 24,4	21,1	22,1	21,8	21,5	13,0				132. 8. 21,13				129,76	103. 32. 45,03	T.
June 16	Zenith Point....	0. 9,0	9,1	3,8	7,7	6,8	1,4	+2,7	10,555		66. 24. 53,86						T.
June 19	☉ N.L.....	0. 61,0	61,2	55,9	59,4	60,4	51,0	+4,4	11,934		94. 55. 16,93	30,324	61,9	68,5	30,93	66. 18. 2,00	T.
	☉ S.L.....	2. 29,4	27,5	24,5	25,1	29,7	19,0		11,984		95. 26. 44,86				31,61	66. 49. 30,61	T.
	(e) ☉ N.L.....	0. 26,7	28,0	20,9	24,6	25,1	17,8			-2	127. 15. 29,60	30,310	62,1	62,1	102,96	98. 39. 26,70	T.
	☉ N.L.....	...	...	...	...	...	...		9,909	-1	127. 15. 28,67					98. 39. 25,77	T.
	☉ N.L.....	...	...	...	...	...	...		9,824		127. 15. 27,57					98. 39. 24,67	T.
	☉ N.L.....	...	...	...	...	...	...		9,685	+1	127. 15. 27,54					98. 39. 24,64	T.
	☉ N.L.....	...	...	...	...	...	...		9,500	+2	127. 15. 28,43					98. 39. 25,53	T.
	H. C. 29372.....	3. 12,9	12,0	9,3	10,2	13,3	4,0				137. 38. 10,75	30,318	58,6	57,3	169,53	109. 3. 14,42	T.
	B.A.C. 5408.....	3. 51,8	48,6	49,0	49,1	51,5	48,6				136. 43. 50,33				161,28	108. 8. 45,75	T.
June 20	(f) ☉ S.L.....	0. 60,5	62,0	56,4	58,6	62,6	51,6	+2,0	9,903		95. 26. 0,70	30,220	65,7	75,0	31,08	66. 48. 44,86	T.
	☉ N.L.....	4. 30,8	30,9	25,1	27,1	30,4	21,9		9,903		94. 54. 29,69				30,42	66. 17. 13,19	T.
	α Herculis.....	2. 62,4	60,2	58,3	60,4	60,3	53,3				104. 2. 59,35	30,168	58,6	54,0	44,96	75. 25. 57,39	T.
	(a) ρ Herculis R. ...	4. 41,5	40,1	33,5	38,5	37,9	34,4		9,906		231. 29. 39,59				15,55	52. 42. 38,88	T.
	ρ Herculis.....	0. 9,7	8,1	3,1	6,8	7,9	1,0		9,906		81. 20. 8,06					52. 42. 36,69	T.
June 21	(g) ☉ N.L.....	3. 67,7	65,0	65,1	66,3	70,0	57,8		9,755		94. 54. 10,69	30,124	67,7	73,5	30,40	66. 16. 54,17	T.
	☉ S.L.....	0. 37,1	38,9	29,2	34,1	38,9	27,0		9,755		95. 25. 39,34				31,07	66. 48. 23,49	T.
	γ Libræ.....	2. 44,4	43,2	39,0	41,5	45,0	35,0				132. 52. 41,53	30,104	62,1	61,7	130,77	104. 17. 5,38	T.
	η Libræ.....	1. 57,5	55,9	52,8	54,1	58,1	49,0				133. 46. 54,70				136,53	105. 11. 24,31	T.
	(h) ☉ N.L.....	3. 62,1	58,1	57,2	57,8	62,2	51,8			-2	134. 29. 2,44	30,108	60,7	60,2	141,76	105. 53. 37,28	T.
	☉ N.L.....	...	...	...	...	...	...		9,921	-1	134. 29. 2,15					105. 53. 36,99	T.
	☉ N.L.....	...	...	...	...	...	...		9,784		134. 29. 2,97					105. 53. 37,81	T.
	☉ N.L.....	...	...	...	...	...	...		9,761	+1	134. 29. 1,84					105. 53. 36,18	T.
	☉ N.L.....	...	...	...	...	...	...		9,660	+2	134. 29. 1,25					105. 53. 36,09	T.
	Antares.....	3. 55,0	52,1	52,1	51,0	56,4	47,7				144. 38. 52,65	30,108	60,1	59,3	269,32	116. 5. 35,05	T.
June 22	☉ S.L.....	0. 59,2	59,0	54,4	54,8	58,9	48,6		10,470		95. 25. 46,08	30,154	67,1	71,1	31,25	66. 48. 30,41	T.
	(a) ☉ N.L.....	4. 26,1	26,7	18,9	22,2	24,2	16,0		10,470		94. 54. 12,52				30,53	66. 16. 56,18	T.
	(a) Zenith Point....	4. 46,3	44,5	38,0	42,8	40,6	39,2	+2,6	9,374		66. 24. 54,92						T.
	ν Scorpii.....	3. 57,4	55,3	53,2	54,6	59,9	48,4	+2,0		+3	137. 38. 54,61	30,188	65,6	63,1	166,95	109. 3. 54,64	C.
	Antares.....	3. 57,6	55,0	53,8	54,4	59,8	48,9				144. 38. 55,18				267,95	116. 5. 36,21	C.
	(i) ☉ N.L.....	4. 43,0	38,6	39,0	38,2	44,6	32,6			-2	136. 59. 42,43	30,190	63,7	59,9	162,07	108. 24. 37,58	C.
	☉ N.L.....	...	...	...	...	...	...		9,965	-1	136. 59. 41,82					108. 24. 36,97	C.
	☉ N.L.....	...	...	...	...	...	...		9,902		136. 59. 41,69					108. 24. 36,84	C.
	☉ N.L.....	...	...	...	...	...	...		9,775	+1	136. 59. 42,80					108. 24. 37,95	C.
	☉ N.L.....	...	...	...	...	...	...		9,726	+2	136. 59. 42,18					108. 24. 37,33	C.

ONE REVOLUTION of the MICROMETER = 20",850.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.

(a) Negative correction for Runs. (b) Faint from clouds. (c) The companion of β Scorpii. (d) The recorded Pointer reading was 1° less: alteration conjectural. (e) Clouded and faint at times. (f) Beautiful definition: the sky covered with light clouds. (g) Badly defined. (h) Waving. (i) Ragged.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5".	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refract.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
June 22	η Ophiuchi..... θ Ophiuchi.....	2. 26,2 4. 17,2	22,3 14,3	20,0 14,8	20,9 14,0	26,7 19,0	15,8 7,8	+2,0			134. 7. 22,15 143. 24. 14,80	30,190	63,0	60,1	139,67 244,19	105. 31. 54,90 114. 50. 32,07	C. C.
June 24	δ N.L..... δ N.L..... δ N.L.....	1. 36,4	35,4	29,7	34,6	37,1	27,5		9,300 9,274 9,251	-2 -1	139. 16. 48,16 139. 16. 48,76 139. 16. 49,17	30,168	65,0	60,3	184,52	110. 42. 5,76 110. 42. 6,36 110. 42. 6,77	B. B. B.
June 25	(a)(b) \odot S.L..... \odot N.L.....	3. 69,5 2. 32,5	68,4 29,4	60,0 26,0	65,7 29,1	69,7 32,7	59,5 21,2		11,668 11,668		95. 28. 30,62 94. 56. 53,87	30,133	69,5	77,7	30,88 30,22	66. 51. 14,58 66. 19. 37,17	B. B.
June 26	(c) \odot N.L..... (a) \odot S.L.....	3. 30,0 4. 62,3	25,3 62,4	24,6 54,3	26,7 59,7	27,9 61,9	19,9 52,6		9,359 9,359		94. 58. 39,34 95. 30. 12,24	29,916	67,5	75,7	30,16 30,82	66. 21. 22,58 66. 52. 56,14	B. B.
June 29	(d) \odot S.L..... (e) Hygeia	2. 20,1 3. 52,6	15,2 48,5	14,0 48,2	16,9 51,8	16,1 50,4	8,4 41,4		8,376		95. 37. 49,13 140. 43. 49,07	29,756 29,834	62,4 56,0	60,5 46,6	31,75 205,58	67. 0. 33,96 112. 9. 27,73	C. C.
July 1	\odot N.L..... \odot S.L..... H. C. 36087..... (f) Hygeia	2. 68,5 4. 39,4 1. 68,5 4. 50,5	63,9 32,9 64,6 43,5	64,0 34,9 62,5 46,4	63,5 35,3 64,0 46,2	68,2 38,6 65,7 47,8	56,5 25,6 57,7 38,6		9,116 9,116		95. 13. 22,73 95. 44. 53,18 138. 37. 3,97 140. 44. 45,82	29,788	65,8	69,6	30,70 31,37 178,90 203,67	66. 36. 6,51 67. 7. 37,63 110. 2. 15,95 112. 10. 22,57	C. C. C. C.
July 2	(f)(g) \odot N.L..... (f)(g) \odot S.L.....	3. 24,5 4. 53,9	19,5 48,0	19,4 49,7	25,1 52,2	23,5 50,5	12,2 39,4		12,161 12,161		95. 17. 35,36 95. 49. 4,21	29,836	62,6	66,2	31,04 31,72	66. 40. 19,98 67. 11. 49,01	B. B.
July 4	(h) δ Ursæ Min. R.... (h)(i) δ Ursæ Min. R.... (h) δ Ursæ Min. R.... (h) δ Ursæ Minoris... (h) δ Ursæ Minoris... (k) Hygeia	2. 13,6 2. 27,5 ... 1. 31,6	10,8 24,0 ... 28,8	15,2 29,4 ... 32,6	14,1 25,5 ... 30,0	14,3 28,4 ... 32,2	10,4 23,5 ... 27,5	+4,1	7,985 8,330 8,437 9,140 9,476		280. 47. 45,46 280. 47. 45,71 280. 47. 45,97 32. 2. 47,57 32. 2. 47,45 140. 46. 30,65 66. 25. 16,61	29,880	57,2	52,0	39,67 204,48	3. 23. 59,48 3. 23. 59,23 3. 23. 58,97 3. 23. 59,29 3. 23. 59,17 112. 11. 46,52	C. C. C. C. C. C.
July 5	(m) \odot S.L..... \odot N.L..... (n) * \mathcal{R} . 16 ^h . 56 ^m . 10 ^s . Zenith Point..... (o) β Lyrae R..... β Lyrae..... (e) Hygeia	4. 11,3 2. 43,5 4. 36,1 0. 14,7 2. 55,7 4. 37,3 1. 63,7	7,9 41,2 34,0 14,3 54,2 31,8 61,9	13,4 45,0 40,0 14,5 56,8 40,2 64,6	12,0 44,0 37,4 16,4 56,8 36,2 64,1	11,8 44,6 38,8 14,5 57,1 38,2 64,4	5,2 38,6 30,4 12,8 51,7 30,3 59,6		9,671 9,671 9,859 5,702 5,702	+2 +4	96. 4. 17,82 95. 32. 50,82 143. 49. 36,75 66. 25. 17,52 227. 24. 25,44 85. 26. 6,85 140. 47. 3,32	30,028 30,136 30,140 30,136	60,5 59,0 58,1 57,0	63,7 53,2 51,5 51,1	32,41 31,72 255,37 20,19 206,35	67. 26. 40,71 66. 55. 13,02 115. 15. 42,60 56. 48. 20,27 56. 48. 17,52 112. 12. 20,15	C. C. C. C. C. C. C.
July 7	(p) Zenith Point....	0. 48,1	47,4	48,6	48,5	48,5	45,3	+1,5	11,432		66. 25. 17,89						C.
July 8	(q) \odot S.L..... \odot N.L..... * \mathcal{R} . 16 ^h . 56 ^m . 10 ^s . (r) Hygeia	1. 52,4 0. 23,0 0. 23,8 0. 10,4	51,4 21,8 25,6 11,6	53,9 24,2 24,8 12,3	51,8 22,0 25,6 12,2	53,7 24,7 25,6 11,7	46,8 17,8 23,0 7,6		7,166 7,166 12,056 15,570	-1 +2	96. 22. 51,16 95. 51. 21,42 143. 49. 41,65 140. 48. 14,81	29,986 30,004 29,986	58,8 56,2 52,3	61,8 48,1 47,5	32,89 32,20 257,00 207,14	67. 45. 14,16 67. 13. 48,73 115. 15. 48,73 112. 13. 32,03	C. C. C. C.
July 9	(s) Zenith Point.... (m) \odot N.L..... \odot S.L..... * \mathcal{R} . 19 ^h . 11 ^m . 19 ^s . (t) Hygeia	0. 9,4 2. 34,2 3. 62,8 2. 19,0 3. 43,7	11,2 32,5 59,7 19,0 43,5	10,5 36,6 65,5 20,8 46,5	12,1 33,8 63,2 19,5 46,1	10,5 34,8 62,3 21,4 44,7	8,1 28,5 56,5 15,7 39,5	+6,5	9,636		66. 25. 17,92						C.
July 10	\odot S.L.....	1. 18,2	17,5	20,7	18,5	19,6	14,1		7,793	+2½	96. 37. 4,56	30,012	56,7	59,5	33,39	67. 59. 28,03	C.
July 11	* \mathcal{R} . 18 ^h . 58 ^m . 43 ^s . δ Cygni R..... δ Cygni.....	0. 27,1 2. 33,2 0. 35,3	30,3 32,7 37,2	29,6 33,4 37,4	27,2 32,5 33,7	31,4 33,6 38,1	24,5 31,9 32,4		6,613 6,613	-1 +2½	60. 50. 28,45 238. 58. 43,93 73. 51. 47,40	30,072 30,076	58,2 57,3	54,5 54,6	5,68 7,59	32. 12. 12,85 45. 13. 49,58 45. 13. 45,07	C. C. C.

ONE REVOLUTION OF THE MICROMETER = 20".850. From July 3 = 20".860. ONE INTERVAL from the middle wire for an Equatorial Star = 16".6. ASSUMED CO-LATITUDE = 37°.47'.8".00.

July 3, the Circle was taken from the wall to clean the pivots, the Microscopes were adjusted, the distance of the wire-frame from the object-glass was altered, and the Azimuth Error was corrected. (See the Introduction.) The Micrometer-wire was adjusted equatorially on July 4 after the observations.

(a) Negative correction for Runs. (b) The reading of E, being omitted, is supplied so as to differ from the mean by the same quantity as in the observation of N.L. (c) Very unsteady. (d) Clouded. N.L. lost by clouds and the clamp failing. (e) Very faint: bisection quite doubtful. (f) The Circle reading has been diminished 5". (g) Not well defined. (h) Times by Molyneux, 18^h. 11^m. 30^s, 18^h. 16^m. 8^s, 18^h. 20^m. 44^s, 18^h. 25^m. 45^s, and 18^h. 29^m. 56^s. M fast on H. 39". (i) The micrometer reading was by mistake set down 8".470. (k) Faint. (l) This Zenith Point is deduced from the observations of δ Ursæ Minoris. (m) Cloudy. (n) 'Pretty good.' (o) Waving and flaring. (p) After the observations of July 5 the micrometer wire was adjusted more exactly. (q) Circle not clamped. Microscope A being moved before it was read off, the reading is supplied as on June 25. (r) Extremely faint: the bisection doubtful. (s) July 8. 4^h the wires of Microscope E were accidentally broken. After replacing them the Zenith Point was taken. (t) Bisection not good: the tangent-screw failed.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Run for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"		r.		"	Inch.	"	"		"	"	"	
July 13	(a) ⊙ S.L.....	0. 8,4	11,2	11,7	10,9	10,6	6,0	+6,7	6,530		97. 1. 22,23	30,028	62,0	66,8	33,46	68. 23. 45,77	C.		
	⊙ N.L.....	3. 39,7	40,7	44,3	42,3	41,5	35,7		6,530	+2	96. 29. 53,92				32,77	67. 52. 16,77	C.		
	(b) Hygeia	4. 58,8	62,1	60,6	61,3	62,4	57,3				140. 50. 0,42	30,034	59,5	53,2	205,43	112. 15. 15,93	C.		
	γ Aquilæ R....	1. 52,2	53,7	52,0	54,0	53,2	49,3		5,025		204. 28. 36,60	30,024	58,6	52,7	52,27	79. 44. 41,59	C.		
	γ Aquilæ	0. 11,5	14,9	15,1	13,2	14,8	9,5		5,025	+3	108. 21. 57,23					79. 44. 39,58	C.		
July 15	⊙ N.L.....	0. 37,5	44,5	39,5	43,3	41,3	35,4			-2	121. 10. 46,80	29,928	71,5	77,3	78,02	92. 33. 54,90	T.		
	⊙ N.L.....	...	...	...	...	...	...		9,885	-1	121. 10. 46,02					92. 33. 54,12	T.		
	⊙ N.L.....	...	...	...	...	...	...		9,752		121. 10. 45,55					92. 33. 53,65	T.		
	⊙ N.L.....	...	...	...	...	...	...		9,583	+1	121. 10. 45,82					92. 33. 53,92	T.		
	⊙ N.L.....	...	...	...	...	...	...		9,443	+2	121. 10. 45,42					92. 33. 53,52	T.		
July 16	(b) Spica	3. 57,8	66,3	60,4	64,0	64,3	56,0				128. 59. 1,23				105,95	100. 22. 37,26	T.		
	Hygeia	0. 43,7	48,5	47,0	46,1	49,0	41,2				140. 50. 46,08	29,946	65,1	61,7	201,46	112. 15. 57,62	T.		
	⊙ N.L.....	1. 52,9	56,9	56,9	55,1	57,9	49,0		8,219		96. 57. 32,35	29,920	70,0	79,6	32,44	68. 19. 54,87	T.		
	⊙ S.L.....	3. 23,8	24,6	27,6	23,6	24,9	17,3		8,219		97. 29. 1,53				33,12	68. 51. 24,73	T.		
	⊙ N.L.....	1. 37,8	42,1	40,6	40,0	42,0	34,6			-2	125. 46. 45,83	29,895	67,9	66,0	94,94	97. 10. 10,85	T.		
July 17	⊙ N.L.....	...	...	...	...	...	...		9,859	-1	125. 46. 45,81					97. 10. 10,83	T.		
	⊙ N.L.....	...	...	...	...	...	...		9,670		125. 46. 46,75					97. 10. 11,77	T.		
	⊙ N.L.....	...	...	...	...	...	...		9,593	+1	125. 46. 45,32					97. 10. 10,34	T.		
	⊙ N.L.....	...	...	...	...	...	...		9,514	+2	125. 46. 43,89					97. 10. 8,91	T.		
	(c) A Draconis R....	3. 27,2	25,1	30,3	26,5	25,4	23,0		11,205		263. 13. 1,88	29,915	65,7	63,0	17,24	20. 54. 6,80	T.		
July 22	A Draconis	2. 58,4	59,3	59,9	56,4	60,4	52,4		11,205	+1½	49. 32. 33,94					20. 54. 6,78	T.		
	⊙ Ophiuchi R....	2. 38,6	39,0	38,6	39,0	40,6	35,0		7,784		204. 38. 25,28				50,72	79. 34. 51,36	T.		
	⊙ Ophiuchi	1. 20,9	25,0	24,5	22,7	25,1	18,0		7,784	+2	108. 12. 9,34					79. 34. 50,14	T.		
	⊙ S.L.....	4. 41,3	42,0	46,9	42,1	43,3	36,7		11,961		97. 39. 2,19	29,878	67,1	70,0	33,92	69. 1. 26,19	T.		
	⊙ N.L.....	3. 9,1	9,8	14,0	10,1	11,9	4,1		11,961		97. 7. 29,62				33,22	68. 29. 52,92	T.		
July 23	(e) ⊙ N.L.....	0. 8,0	12,7	11,0	10,8	12,9	3,9			-2	129. 55. 15,17	29,845	69,2	69,5	111,68	101. 18. 56,93	T.		
	⊙ N.L.....	...	...	...	...	...	...		9,784	-1	129. 55. 17,09					101. 18. 58,85	T.		
	⊙ N.L.....	...	...	...	...	...	...		9,620		129. 55. 17,85					101. 18. 59,61	T.		
	⊙ N.L.....	...	...	...	...	...	...		9,578	+1	129. 55. 16,00					101. 18. 57,76	T.		
	⊙ N.L.....	...	...	...	...	...	...		9,520	+2	129. 55. 14,44					101. 18. 56,20	T.		
July 24	⊙ S.L.....	3. 61,8	61,7	62,0	62,6	62,8	54,5	+7,3		+1	98. 34. 1,77	29,948	65,2	74,6	34,92	69. 56. 27,10	C.		
	(f) ⊙ N.L.....	3. 25,0	25,3	27,6	25,9	27,4	21,3		6,626		98. 14. 36,63	29,838	67,5	78,7	34,08	69. 37. 1,12	C.		
	⊙ S.L.....	4. 54,5	54,3	57,5	55,2	55,2	46,2		6,626	+2	98. 46. 5,32				34,78	70. 8. 30,51	C.		
	⊙ S.L.....	3. 36,6	38,3	39,7	40,7	37,0	31,4		10,216		98. 58. 33,66	29,896	65,9	66,7	35,97	70. 21. 0,04	B.		
	⊙ N.L.....	1. 61,7	65,0	65,3	65,7	64,2	57,0		10,216		98. 26. 59,14				35,24	69. 49. 24,79	B.		
July 27	(g) κ Cephei R....	2. 9,7	10,1	12,3	12,6	8,4	7,1		8,775	-1½	271. 27. 36,08	29,888	60,0	53,5	27,02	12. 44. 22,49	B.		
	κ Cephei	2. 37,0	34,4	38,2	35,2	35,5	31,8		8,775	+1½	41. 23. 3,02					12. 44. 26,41	B.		
	(i) ⊙ N.L.....	2. 17,6	19,0	21,4	19,3	19,4	13,6		8,804	-2	136. 27. 40,50	29,876	59,4	52,0	158,33	107. 52. 9,24	B.		
	⊙ N.L.....	...	...	...	...	...	...		8,855	-1	136. 27. 41,17					107. 52. 9,91	B.		
	⊙ N.L.....	...	...	...	...	...	...		8,929		136. 27. 41,29					107. 52. 10,03	B.		
July 29	⊙ N.L.....	...	...	...	...	...	...		8,993	+1	136. 27. 41,52					107. 52. 10,26	B.		
	⊙ N.L.....	...	...	...	...	...	...		9,088	+2	136. 27. 41,06					107. 52. 9,80	B.		
	Bessel xvii. 63..	1. 6,5	9,0	8,8	8,0	8,4	2,8				129. 6. 7,52	29,762	60,3	55,8	110,52	100. 29. 48,45	B.		
	(b)(k)ρ Herculis R...	4. 18,3	21,4	18,3	17,7	20,1	16,7		7,428	-2	231. 30. 11,79				15,28	52. 42. 29,08	B.		
	(b)(k)ρ Herculis	4. 28,6	30,7	29,6	26,8	29,2	25,6		7,428		81. 20. 21,95					52. 42. 27,64	B.		
July 29	(b)(l)μ' Sagittarii R....	4. 11,7	15,2	13,7	13,3	13,6	8,8		7,311	-2	173. 10. 8,85	29,780	59,8	55,8	188,23	111. 5. 24,97	B.		
	(b)(l)μ' Sagittarii	4. 28,3	31,0	29,0	28,5	30,5	25,9		7,311	+1	139. 40. 24,78					111. 5. 23,42	B.		
	H. C. 33894	2. 4,5	6,3	8,0	5,3	6,1	0,5			+2	137. 12. 5,43				163,00	108. 36. 38,84	B.		
	(m)(n)Hygeia	2. 14,2	14,7	16,9	14,5	14,6	9,1				140. 52. 14,53				203,10	112. 17. 28,04	B.		
	(m)(o)⊙ S.L.....	0. 16,0	19,0	18,2	16,2	17,6	10,5		9,762		100. 5. 21,29	30,073	60,6	66,5	37,76	71. 27. 49,46	B.		
July 29	⊙ N.L.....	3. 40,0	41,4	45,0	41,1	40,8	34,6		9,762		99. 33. 46,35				37,02	70. 56. 13,78	B.		

ONE REVOLUTION of the MICROMETER = 20",860. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) The division in advance having been bisected with microscope F, the correction + 2",3 for its Run, which was taken after replacing the Circle, has been applied. (b) Negative correction for Run. (c) Very misty. (d) Faint from cloud. (e) The Circle reading has been increased 5'. (f) Bisecting of N.L. more satisfactory than that of S.L. which was very ragged. (g) Rather tremulous. (h) Clouded but well bisected. (i) 'Good.' (k) The micrometer reading was 10' greater. (l) Clouded but steady. (m) Cloudy. (n) 'Not good.' (o) 'Good observation.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.		Observer.
		A	B	C	D	E	F						Int.	Ext.				
		"	"	"	"	"	"		r.		° ' "	Inch.	°	°	"	° ' "	"	
July 29	(a) α Ophiuchi R...	3.31,2	31,0	32,6	31,0	31,6	26,2	+7,3	9,083	+1½	206.53.50,57	30,124	60,8	58,2	47,62	77.19.22,64	B.	
	α Ophiuchi.....	1.22,0	25,0	23,8	22,7	22,9	18,1		9,083	+4	105.56.42,42					77.19.20,45	B.	
	(b) Bessel xvii. 800.	1.27,9	30,4	30,5	29,3	30,2	24,3		9,083		103.46.48,26				44,07	75.9.22,74	B.	
July 30	(a)(c) α Ophiuchi R..	3.28,1	28,9	30,0	29,5	29,6	23,9		9,028	+2½	206.53.49,25	30,110	62,9	61,8	47,26	77.19.23,60	B.	
	Zenith Point.....	0.49,0	51,7	50,5	51,4	49,4	46,4		11,551		66.25.17,59						B.	
Aug. 2	(d) ⊙ N.L.....	3.13,2	14,4	17,2	14,6	14,9	8,3		11,112	+1½	100.32.51,18	30,039	64,3	69,8	38,13	71.55.19,72	B.	
	⊙ S.L.....	4.46,9	46,7	51,8	49,2	48,7	41,1		11,112	+4	101.4.25,37				38,89	72.26.54,67	B.	
	(e) ⊙ N.L.....	0.6,4	13,0	8,3	10,8	10,6	4,0	+5,5	10,677	-2	102.14.50,88	30,008	63,7	62,5	41,16	73.37.22,22	B.	
	⊙ N.L.....	...	...	...	...	...	...		10,757	-1	102.14.51,09					73.37.22,43	B.
	⊙ N.L.....	...	...	...	...	...	...		10,860		102.14.50,93					73.37.22,27	B.
	⊙ N.L.....	...	...	...	...	...	...		10,981	+1	102.14.50,48					73.37.21,82	B.
	⊙ N.L.....	...	...	...	...	...	...		11,062	+2	102.14.50,95					73.37.22,29	B.
Aug. 5	(f) ⊙ N.L.....	0.24,9	30,5	28,0	28,3	29,9	21,6		10,689		101.20.12,90	29,692	67,0	73,7	38,52	72.42.41,60	B.	
	⊙ S.L.....	1.62,0	66,3	64,2	65,2	64,7	57,9		10,689		101.51.49,38				39,28	73.14.18,84	B.	
	Zenith Point....	0.20,5	22,1	19,8	21,7	20,3	17,8	+5,2	10,125		66.25.17,82						B.	
Aug. 6	(g) ⊙ S.L.....	3.11,6	15,3	14,9	16,6	13,4	7,2	+5,5	10,123		102.8.11,18	29,718	66,3	69,3	40,05	73.30.41,41	B.	
Aug. 7	(h) ⊙ N.L.....	2.15,7	22,0	16,4	20,5	14,5	11,9		7,284		101.53.13,91	29,850	65,5	68,3	39,94	73.15.44,03	B.	
	⊙ S.L.....	3.51,2	53,0	53,5	55,6	51,4	44,7		7,284		102.24.48,93				40,72	73.47.19,83	B.	
Aug. 8	⊙ S.L.....	1.13,0	17,9	15,2	17,3	14,3	7,0		8,739		102.41.40,65	29,684	67,2	75,2	40,37	74.4.11,20	B.	
	(i) ⊙ N.L.....	4.36,4	43,2	37,3	40,2	40,2	34,0		8,739		102.10.4,78				39,59	73.32.34,55	B.	
Aug. 9	(k) π Aquilæ.....	0.16,0	19,7	18,7	18,4	15,6	12,7	+4,8			107.10.16,90	29,681	60,5	58,0	49,02	78.32.56,06	B.	
	B.A.C. 7485....	1.52,9	54,2	56,0	54,6	52,0	47,4			+1½	135.26.53,05	29,687	59,6	57,0	147,66	106.51.10,85	B.	
	45 Capricorni...	2.26,9	26,4	29,8	29,8	26,2	21,7		12,439	+4	134.1.35,64				137,51	105.25.43,29	B.	
	c¹ Capricorni...	2.63,0	62,7	65,4	64,9	60,6	57,7		12,439	+4	128.22.11,58				106,64	99.45.48,36	B.	
	ζ Cephei R.....	4.15,7	13,9	18,4	16,4	12,9	11,3		7,069	-1	251.40.16,36				5,24	32.32.4,26	B.	
	ζ Cephei.....	4.16,0	15,9	19,9	17,4	14,5	11,9		7,069		61.10.17,76					32.32.2,66	B.	
	δ Cephei R.....	1.31,4	32,9	33,3	33,4	29,8	29,7		10,417		251.51.23,28				5,43	32.20.57,15	B.	
	(l) i δ Cephei.....	4.19,8	24,6	21,7	21,4	21,3	18,1		10,417	+1½	60.59.12,86					32.20.57,57	B.	
	(a)(m) Neptune.....	1.7,0	11,0	10,5	10,1	8,3	4,4				128.36.8,73	29,694	59,7	57,8	107,53	99.59.46,40	B.	
Aug. 10	(a)(d) ⊙ S.L.....	1.6,6	13,0	9,2	11,4	8,5	3,1		9,804	+1½	103.16.12,68	29,812	63,2	66,3	42,13	74.38.44,95	B.	
	(i) ⊙ N.L.....	4.30,7	37,0	33,1	35,9	34,0	27,7		9,804	+4	102.44.36,90				41,33	74.7.8,37	B.	
Aug. 12	(i) ⊙ N.L.....	4.24,2	29,5	24,2	26,9	24,6	21,0		7,871		103.20.9,38	29,712	63,2	64,5	42,24	74.42.41,76	B.	
	⊙ S.L.....	0.62,8	66,4	64,7	66,4	63,5	58,4		7,871		103.51.48,28				43,05	75.14.21,47	B.	
	Zenith Point....	0.3,0	5,7	4,1	5,0	2,5	0,4		9,310		66.25.17,86						B.	
	α Aquarii R....	4.30,8	30,4	34,6	34,2	29,5	26,4		5,111		193.11.13,69	29,808	58,0	52,1	77,29	91.2.29,46	B.	
Aug. 13	(a)(n) α Aquarii.....	2.39,3	41,0	42,4	41,2	38,3	35,6		5,111	+2	119.39.22,03					91.2.29,46	B.	
Aug. 13	(o) ⊙ N.L.....	3.37,0	38,4	40,7	38,6	36,4	30,4		10,976		103.38.17,14	29,827	62,3	64,2	42,90	75.0.50,18	B.	
	⊙ S.L.....	0.14,9	19,4	16,7	17,1	15,3	10,5		10,976		104.9.55,32				43,72	75.32.29,18	B.	
Aug. 14	(p) ⊙ N.L.....	1.20,9	27,0	25,3	25,2	24,7	18,8		9,296	-2	132.16.22,45	29,999	64,0	65,7	125,67	103.40.39,12	B.	
	⊙ N.L.....	...	...	...	...	...	...		9,188	-1	132.16.22,36					103.40.39,05	B.
	⊙ N.L.....	...	...	...	...	...	...		9,173		132.16.20,25					103.40.36,96	B.
	⊙ N.L.....	...	...	...	...	...	...		9,047	+1	132.16.20,40					103.40.37,07	B.
	⊙ N.L.....	...	...	...	...	...	...		8,885	+2	132.16.21,24					103.40.37,91	B.
	(q) Hygeia.....	2.25,9	28,9	29,5	27,9	26,4	22,4		23,644		140.47.42,61	30,008	61,7	55,8	203,63	112.12.56,38	B.	
	(r) γ Aquilæ.....	0.21,9	24,7	25,2	24,0	21,1	18,0		19,941		108.21.55,16	30,011	59,4	55,7	51,93	79.44.37,23	B.	
	H. C. 38104....	2.58,9	59,0	63,1	60,2	58,8	52,5				134.52.59,23				145,42	106.17.14,79	B.	
	(s) B.A.C. 6914....	1.13,4	16,0	17,6	15,6	14,7	9,9				139.36.14,73				188,92	111.1.13,79	B.	

ONE REVOLUTION of the MICROMETER = 20",860. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Cloudy. (b) 'The north-preceding of a coarse double star: the components equal.' This is $\Sigma 2217$. (c) Hid by cloud at the direct observation.
 (d) Without the dark glass. (e) Rather faint, but the observation not doubtful. (f) Very steady. (g) N.L. lost by a mistake in setting. (h) The sky was much overcast during the months of July and August. (i) Negative correction for Runs. (k) 'Appeared oblong.' (l) Faint from cloud.
 (m) The Planet was seen only a few seconds. (n) The mercury unsteady. (o) Bad definition. (p) Faint, and clouds passing. The micrometer reading has been diminished by 1' conjecturally. (q) 'Or Mag. 11.12' see the transit observation. A preceding and brighter object was also bisected.
 (r) Observed by Mr John W. Breen. (s) After this the sky was completely overcast.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.		"	"	"	
		" "	" "	" "	" "	" "	" "						"	"					
Aug.15	(a)) N.L.....	1.59,0	61,4	62,3	60,8	60,3	53,2	+4,8	10,599	-2	135.21.50,95	29,940	62,2	60,3	147,29	106.46.8,38	B.		
	) N.L.....	...	...	...	...	...	...		10,454	-1	135.21.52,22					106.46.9,65	B.
	) N.L.....	...	...	...	...	...	...		10,464		135.21.50,14					106.46.7,57	B.
	) N.L.....	...	...	...	...	...	...		10,242	+1	135.21.52,82					106.46.10,25	B.
Aug.16	⊙ S.L.....	0.15,4	17,8	16,7	16,7	15,3	9,3	+5,2	8,639	+1 1/2	105.5.43,38	29,924	64,5	70,6	44,78	76.28.18,03	B.		
	⊙ N.L.....	3.36,0	37,0	39,4	36,4	34,5	27,9		8,639	+1 1/2	104.34.3,95				43,94	75.56.37,76	B.		
	(b)) N.L.....	0.15,9	21,4	19,3	19,4	20,2	14,8		8,639		137.35.46,94	29,941	64,8	62,3	165,31	109.0.22,12	B.		
	) N.L.....	...	...	...	...	...	...		8,663	+1	137.35.45,11					109.0.20,29	B.
	) N.L.....	...	...	...	...	...	...		8,612	+2	137.35.44,73					109.0.19,91	B.
	(c) 51(H.)Cepheisp.r.	2.45,6	45,2	48,5	45,1	43,7	40,3		13,288		286.56.37,09	29,950	62,8	59,3	48,94	2.44.59,90	B.		
	51(Hev.)Cepheisp.	0.9,7	12,6	11,4	9,8	10,8	5,9		13,288		25.54.0,32					2.44.58,75	B.		
	(d) H. C. 36128....	4.49,6	54,4	52,4	52,2	53,0	47,5				137.29.51,48				165,45	108.54.26,80	B.		
	(d)(e)H. C. 36501....	4.5,5	10,5	7,8	7,4	8,3	3,8				136.4.7,07				153,14	107.28.30,08	B.		
	(f) B.A.C. 6666....	0.6,8	10,3	8,5	9,2	8,4	4,4				145.50.7,97	29,950		59,3	296,83	117.16.54,67	B.		
Aug.19	(g) ⊙ S.L.....	3.16,2	16,8	20,3	20,2	16,4	11,0		9,457		106.3.28,71	29,681	63,8	63,0	46,66	77.26.5,24	T.		
	⊙ N.L.....	1.40,0	42,8	42,2	45,2	39,7	34,1		9,457		105.31.52,46				45,79	76.54.28,12	T.		
	(d) Zenith Point....	4.52,5	55,0	53,2	55,8	52,5	49,6		8,799		66.25.18,13						T.		
Aug.20	(h) ⊙ N.L.....	1.38,1	40,6	40,6	41,9	35,4	31,8		10,080		105.51.36,68	29,659	59,8	56,0	46,96	77.14.13,51	T.		
	(i)) S.L.....	2.49,8	49,1	54,7	51,1	49,1	44,8		9,984	+2	137.37.53,22	29,654	50,7	48,7	168,69	109.2.31,78	T.		
	29 Capricorni....	2.58,0	56,0	62,5	59,7	56,0	52,7			+4 1/2	134.22.57,13	29,655	48,9	47,6	142,52	105.47.9,52	T.		
	(k) Capricorni....	3.27,0	25,0	32,9	28,5	24,3	22,2			+4 1/2	136.3.26,29				155,22	107.27.51,38	T.		
	Neptune.....	2.32,8	31,2	35,5	32,7	29,0	26,6			+4	128.42.31,28	29,647	48,3	44,7	110,78	100.6.11,93	T.		
Aug.21	29 Capricorni...	2.59,3	59,5	63,9	60,4	58,0	54,8			+4	134.22.59,15	29,594	50,8	46,1	142,67	105.47.11,69	T.		
	Capricorni.....	3.29,2	30,0	35,0	31,4	28,1	25,4			+4	136.3.29,69				155,40	107.27.54,96	T.		
	(l)) S.L.....	2.20,7	22,1	25,2	21,3	20,0	16,1				135.17.21,30	29,594		46,1	149,32	106.41.40,49	T.		
	) S.L.....	...	...	...	...	...	...		10,062	+1	135.17.21,53					106.41.41,12	T.
	) S.L.....	...	...	...	...	...	...		10,120	+2	135.17.22,53					106.41.41,72	T.
	δ Capricorni....	3.38,3	38,0	43,6	39,2	37,6	33,5			+3	135.23.38,60	29,599	50,7	45,5	150,34	106.47.58,81	T.		
	μ Capricorni....	0.56,9	60,0	61,0	59,2	56,9	52,0			+3	132.50.57,50				132,68	104.15.0,05	T.		
	Neptune.....	3.11,0	10,0	15,7	11,7	9,2	5,9			+4	128.43.10,68	29,610	49,5	45,1	110,60	100.6.51,15	T.		
Aug.22	⊙ S.L.....	3.46,6	48,0	51,8	51,4	46,1	41,1		12,036		107.3.5,70	29,740	62,0	62,4	48,48	78.25.44,05	T.		
	⊙ N.L.....	2.7,8	10,4	12,9	11,2	7,9	3,9		12,036		106.31.26,91				47,59	77.54.4,37	T.		
	(m)) S.L.....	4.22,2	24,1	29,6	26,4	23,5	19,3		12,036		132.13.42,48	29,800	52,7	48,4	129,00	103.37.41,35	T.		
	) S.L.....	...	...	...	...	...	...		12,151	+1	132.13.42,43					103.37.41,30	T.
	Neptune.....	3.45,2	45,6	49,5	46,0	45,0	40,9			+2 3/4	128.43.45,80				110,60	100.7.26,27	T.		
Aug.23	⊙ N.L.....	1.61,9	65,7	65,9	66,4	63,1	57,4	+5,1	11,217		106.51.38,36	29,877	60,7	61,4	48,48	78.14.17,93	T.		
	⊙ S.L.....	3.43,3	45,8	48,6	46,3	44,2	38,0		11,217		107.23.19,63				49,39	78.46.0,11	T.		
	(n) Neptune.....	4.22,3	22,8	27,0	24,0	22,8	17,4			+2 3/4	128.44.23,26	29,960	51,8	47,0	111,56	100.8.5,91	T.		
	(o)) S.L.....	0.15,4	19,4	17,3	16,9	16,4	11,8			-2	128.35.10,74	29,960	51,3	46,5	110,96	99.58.52,79	T.		
	) S.L.....	...	...	...	...	...	...		10,179	-1	128.35.9,79					99.58.51,84	T.
	) S.L.....	...	...	...	...	...	...		10,195		128.35.12,18					99.58.54,23	T.
Aug.24	⊙ S.L.....	3.34,9	39,4	41,3	38,9	36,6	31,3		9,691		107.43.44,13	29,950	60,0	63,7	49,87	79.6.25,09	T.		
	(p) ⊙ N.L.....	1.56,3	61,0	61,1	60,1	58,8	52,3		9,691		107.12.5,05				48,96	78.34.45,10	T.		
Aug.26	⊙ N.L.....	3.39,3	42,9	46,1	42,8	42,2	36,3		10,858		107.53.24,33	29,910	63,6	64,2	50,04	79.16.5,46	T.		
	⊙ S.L.....	0.23,8	29,8	27,3	26,6	27,9	21,7		10,858		108.25.8,37				50,98	79.47.50,44	T.		
	Zenith Point....	0.17,8	23,9	20,3	22,0	20,6	17,2	+3,9	10,164		66.25.16,91						T.		
	Neptune.....	1.11,7	16,0	14,4	14,8	15,0	9,8	+5,1		+4	128.46.13,37	30,180	54,0	49,7	111,90	100.9.56,36	T.		
Aug.28	⊙ N.L.....	0.6,0	10,6	9,7	9,1	9,5	2,6		9,164		108.35.25,37	30,078	58,6	60,1	51,99	79.58.8,45	C.		
	(q) ⊙ S.L.....	1.47,9	52,2	51,3	50,6	50,0	43,1		9,164	+2	109.7.6,53				52,96	80.29.50,58	C.		

ONE REVOLUTION of the Micrometer = 20",860. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED Co-LATITUDE = 37°.47'.8",00.

(a) Very faint from cloud: not seen at the 5th wire. (b) Much clouded at first, but well observed at the 4th and 5th wires. (c) Times by Molyneux, 18°.30'.40" and 18°.31'.56". M fast on 11, 50". The corrections applied for curvature of path are +0",48 and -1",16, which were found by special calculation. (d) Negative correction for Run. (e) Dense mist coming over. (f) 'Very cloudy and the star faint.' (g) Cloudy. From Aug. 19 to Sept. 7 the Transit and Circle observations are nearly all taken by the same observer. (h) The Limb was much clouded and very ill-defined, and the bisection quite doubtful. (i) Barely visible from cloud. (k) Delayed by the transit observation and taken doubtfully. (l) Waving. (m) The micrometer reading, which was set down 10",000, is assumed to be the same as for the observation of the Sun. (n) 'Good.' (o) 'The Limb was barely full.' (p) Without the dark glass. (q) Not good: bisected hastily to have time for taking the transit of 2 L.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"		r.			Inch.	o	o	"	o	"
Aug. 29	⊙ S.L.....	1. 29,6	33,0	33,6	32,7	31,6	25,1	+5,1	4,563		109. 28. 24,60	30,078	57,8	58,4	53,81	80. 51. 9,50	C.
	⊙ N.L.....	4. 47,0	47,8	52,2	48,6	47,7	40,0		4,563		108. 56. 41,45				52,82	80. 19. 25,36	C.
Aug. 30	⊙ N.L.....	2. 35,7	39,5	41,4	39,2	38,3	31,3	+3,6	8,563		109. 18. 7,86	30,192	56,5	58,5	53,68	80. 40. 53,82	C.
	⊙ S.L.....	4. 17,0	18,5	22,7	21,3	17,7	10,9		8,563	+1	109. 49. 48,29				54,67	81. 12. 34,24	C.
	κ Aquilæ R.....	2. 10,1	12,8	15,2	14,9	13,1	7,3		7,912		186. 52. 56,06	30,243	55,8	51,5	99,61	97. 21. 8,27	T.
	κ Aquilæ.....	1. 52,5	57,0	57,1	56,2	55,9	50,0		7,912		125. 57. 38,58					97. 21. 9,47	T.
	(a) α ² Capricorni R.....	2. 13,4	17,5	18,8	19,8	16,4	12,9		3,900		181. 14. 23,98	30,241	54,2	50,6	126,63	103. 0. 7,37	T.
	α ² Capricorni.....	3. 59,0	60,7	64,4	62,2	61,1	54,7		3,900	+2½	131. 36. 7,86					103. 0. 5,77	T.
Sept. 1	(b) ♂ S.L.....	0. 27,7	31,0	30,4	28,1	30,9	21,9		10,191	+1	99. 25. 24,07	30,360	59,0	62,0	37,51	70. 47. 52,86	T.
Sept. 2	(c) Zenith Point	4. 50,0	55,9	52,0	52,3	52,9	49,0	+1,5	8,816		66. 25. 16,72						T.
	Neptune.....	0. 30,9	37,0	33,4	34,9	36,3	29,8	+3,6		+2½	128. 50. 33,59	30,281	58,8	54,7	111,47	100. 14. 16,34	T.
Sept. 5	(d) ⊙ S.L.....	1. 50,5	54,6	55,3	54,9	51,1	47,4		11,781		112. 1. 15,37	30,298	59,4	58,4	59,23	83. 24. 5,88	T.
	⊙ N.L.....	0. 4,9	10,1	9,0	8,3	6,0	1,9		11,781	+1	111. 29. 29,33				58,15	82. 52. 18,76	T.
Sept. 6	(e) ⊙ N.L.....	1. 23,1	27,1	25,3	25,9	24,4	19,1	+7,7	8,909		111. 51. 47,28	30,275	57,6	58,6	58,84	83. 14. 36,12	T.
	⊙ S.L.....	3. 9,7	13,2	15,9	14,5	13,0	5,9		8,909		112. 23. 35,61				59,93	83. 46. 25,54	T.
	(c)(f) Flora.....	4. 46,1	53,8	51,4	51,1	49,7	45,5			+4½	126. 29. 48,79	30,350	48,2	41,3	104,30	97. 53. 23,09	T.
Sept. 7	⊙ S.L.....	1. 43,7	47,3	48,3	47,3	43,8	39,4		12,197		112. 45. 59,57	30,370	56,4	58,4	60,93	84. 8. 50,50	T.
	(c) ⊙ N.L.....	4. 56,8	63,0	60,9	62,7	61,0	53,9		12,197		112. 14. 13,89				59,82	83. 37. 3,71	T.
	(g) Neptune.....	3. 28,7	32,5	33,4	32,2	30,8	26,4			+2½	128. 53. 31,38	30,430	52,2	46,2	114,22	100. 17. 15,60	T.
Sept. 9	Zenith Point....	0. 8,6	13,4	11,5	12,3	11,3	8,5	+8,2	9,663		66. 25. 18,00						B.
Sept. 10	⊙ N.L.....	1. 49,8	56,4	52,6	55,3	53,4	46,4	+7,7	9,660		113. 21. 59,87	30,300	56,0	60,5	61,81	84. 44. 51,68	B.
	(h) ♂ N.L.....	3. 59,7	64,7	65,3	65,3	63,4	58,0		9,405	-2	130. 49. 21,50	30,279	56,6	62,2	119,59	102. 13. 11,09	B.
	♂ N.L.....	...	...	...	...	...	...		9,376	-1	130. 49. 19,49					102. 13. 9,08	B.
	♂ N.L.....	...	...	...	...	...	...		9,130		130. 49. 21,92					102. 13. 11,51	B.
	♂ N.L.....	...	...	...	...	...	...		8,994	+1	130. 49. 22,00					102. 13. 11,59	B.
	♂ N.L.....	...	...	...	...	...	...		8,864	+2	130. 49. 21,89					102. 13. 11,48	B.
Sept. 11	(h)(i) ♂ N.L.....	1. 2,8	9,2	6,3	8,6	7,1	2,3		13,923	+1	134. 19. 42,27	30,228	58,0	61,3	140,87	105. 43. 53,14	B.
	(h)(c) H. C. 38740	4. 18,6	28,4	22,5	23,5	25,8	20,6				138. 14. 23,07	30,248	56,8	52,7	176,66	109. 39. 9,73	B.
	(h) H. C. 39518.....	3. 18,2	24,4	23,4	24,1	22,4	17,6				132. 48. 22,53				133,84	104. 12. 26,37	B.
	(k) H. C. 40311.....	0. 26,9	34,3	30,3	31,4	32,8	26,5				138. 15. 30,50	30,239	55,5	51,0	177,39	109. 40. 17,89	B.
	(c) Bessel xx. 1305..	4. 51,4	59,0	54,7	56,3	56,7	50,5				130. 39. 54,73				121,32	102. 3. 46,05	B.
	H. C. 40994.....	3. 44,0	47,5	49,5	47,7	47,8	41,5				134. 53. 47,30				148,04	106. 18. 5,34	B.
	Bessel xxi. 142..	3. 5,4	10,5	10,9	9,1	9,2	2,7				131. 18. 8,77				124,82	102. 42. 3,59	B.
	Bessel xxi. 252..	4. 22,0	25,4	27,2	26,1	25,8	19,4				133. 14. 25,45				136,52	104. 38. 31,97	B.
	(l) Bessel xxi. 416..	3. 36,5	41,4	41,6	41,2	40,2	34,9				132. 48. 40,23	30,238	55,2	49,8	134,10	104. 12. 44,33	B.
	Bessel xxi. 717..	3. 40,6	44,5	45,6	44,3	43,5	38,2				131. 18. 43,73				125,18	102. 42. 38,91	B.
	Bessel xxi. 1053.	2. 62,7	66,1	65,5	64,7	64,4	58,9				128. 43. 4,50				111,84	100. 6. 46,34	B.
	Bessel xxi. 1173.	0. 54,4	59,6	57,7	56,6	57,7	51,9				130. 0. 56,55				118,21	101. 24. 44,76	B.
	(m) Bessel xxi. 1309.	0. 46,3	51,3	49,5	48,5	50,5	44,6				133. 45. 48,65				140,33	105. 9. 58,98	B.
	B.A.C. 7709.....	2. 29,0	33,4	32,9	32,5	32,6	27,5				132. 37. 31,97				132,94	104. 1. 34,91	B.
	Neptune.....	0. 52,4	58,4	55,9	55,6	56,0	50,7				128. 55. 55,07	30,231	52,3	46,2	113,67	100. 19. 38,74	B.
	(n) Flora.....	3. 16,3	19,5	22,1	20,3	17,3	12,8				127. 13. 18,90	30,224	50,9	44,3	106,28	98. 36. 55,18	B.
Sept. 12	⊙ S.L.....	4. 3,9	7,8	12,5	8,2	7,9	0,1		8,771		114. 39. 33,42	30,251	55,4	63,3	64,21	86. 2. 27,63	B.
	⊙ N.L.....	2. 14,0	20,3	20,7	19,4	18,3	11,7		8,771		114. 7. 43,62				63,02	85. 30. 36,64	B.
	♂ N.L.....	1. 46,6	53,5	51,7	52,2	52,3	44,3		8,281	-2	136. 57. 29,34	30,246	57,3	59,1	162,26	108. 22. 1,60	B.
	♂ N.L.....	...	...	...	...	...	...		8,240	-1	136. 57. 28,79					108. 22. 1,05	B.
	♂ N.L.....	...	...	...	...	...	...		8,139		136. 57. 29,39					108. 22. 1,65	B.
	♂ N.L.....	...	...	...	...	...	...		8,080	+1	136. 57. 29,01					108. 22. 1,27	B.
	♂ N.L.....	...	...	...	...	...	...		8,012	+2	136. 57. 28,73					108. 22. 0,99	B.

ONE REVOLUTION of the MICROMETER = 20",860. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Unsteady, and scarcely visible from haze. (b) Too faint to be seen earlier: the observation was extremely doubtful. (c) Negative correction for Runs. (d) The limbs ragged and very unsteady. (e) Waving. (f) Observed hurriedly. The Planet was considered to be of Mag. 8.9. (g) 'Good.' (h) The circle reading was 5' greater. (i) Very faint: not visible at the other wires. (k) Before this observation the Pointer was adjusted: it had pointed 5' in advance. (l) Faint. (m) Mist. (n) 'Very bright: of Mag. 8.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.	Observer.	
		A	B	C	D	E	F						Int.	Ext.				
		"	"	"	"	"	"						"	"				"
Sept. 12	H. C. 34882.....	3. 42,6	48,3	50,4	48,8	48,5	40,9	+7,7			138. 53. 47,55	30,249	56,5	53,5	183,27	110. 18. 40,82	B.	
	B.A.C. 6485	3. 26,0	29,7	31,4	29,6	30,8	23,1				141. 28. 29,32				215,80	112. 53. 55,12	B.	
	B.A.C. 6524.....	2. 43,4	47,7	48,1	47,5	47,4	40,0				141. 17. 46,40				213,21	112. 43. 9,61	B.	
	B.A.C. 6566.....	0. 7,6	13,3	12,3	11,3	13,4	7,8				145. 50. 11,00				303,50	117. 17. 4,50	B.	
	(a) H. C. 36961.....	0. 56,5	61,1	60,5	60,0	60,5	54,3				135. 10. 59,07				149,49	106. 35. 18,56	B.	
	(b) Bessel XXI. 495..	4. 36,3	41,0	38,8	37,6	39,2	34,8				131. 19. 37,87	30,251	51,9	47,5	125,92	102. 43. 33,79	B.	
	Bessel XXI. 603..	3. 44,3	46,3	49,7	46,7	46,4	40,5				131. 23. 46,62				126,30	102. 47. 42,92	B.	
	Neptune.....	1. 28,9	31,2	32,0	29,8	28,7	26,2				128. 56. 29,85	30,249	49,5	44,1	114,28	100. 20. 14,13	B.	
	(c) Flora.....	1. 62,5	65,4	67,2	65,3	63,4	59,2			+4	127. 22. 3,63	30,239	48,4	41,9	107,51	98. 45. 41,14	B.	
	Sept. 13	(d) ☉ N.L.....	1. 14,3	20,3	19,0	18,9	17,5	12,1		11,757		114. 30. 40,68	30,270	55,0	62,7	63,99	85. 53. 34,67	B.
☉ S.L.....		3. 5,3	10,4	11,9	10,3	8,1	1,9		11,757		115. 2. 32,13				65,19	86. 25. 27,32	B.	
(e) ☽ N.L.....		3. 22,4	27,9	28,3	28,0	27,6	19,4		10,528	-2	138. 38. 16,97	30,248	56,6	56,6	179,33	110. 3. 6,30	B.	
☽ N.L.....		...	...	...	...	...	...		10,492	-1	138. 38. 17,03					110. 3. 6,36	B.
☽ N.L.....		...	...	...	...	...	...		10,531		138. 38. 15,40					110. 3. 4,73	B.
☽ N.L.....		...	...	...	...	...	...		10,450	+1	138. 38. 16,18					110. 3. 5,51	B.
☽ N.L.....		...	...	...	...	...	...		10,391	+2	138. 38. 16,38					110. 3. 5,71	B.
μ ¹ Sagittarii		0. 17,5	26,3	22,4	24,4	24,8	17,3				139. 40. 22,22				190,85	111. 5. 23,07	B.	
H. C. 37969.....		1. 28,0	33,3	31,8	31,3	32,5	25,9				134. 26. 30,85	30,260	53,5	48,7	145,51	105. 50. 46,36	B.	
Neptune.....		2. 3,3	6,4	9,1	6,2	5,3	0,7				128. 57. 5,70	30,257	51,1	43,7	114,45	100. 20. 50,15	B.	
(f) Flora.....	0. 43,3	47,3	47,8	45,9	45,9	40,2				127. 30. 45,27	30,239	49,5	40,9	108,37	98. 54. 23,64	B.		
Sept. 14	☉ N.L.....	3. 10,3	16,0	16,3	15,8	12,4	16,1	+7,2	8,808		114. 53. 40,14	30,236	54,2	63,5	64,68	86. 16. 35,50	B.	
	☉ S.L.....	0. 3,0	11,5	7,8	9,0	7,3	0,6		8,808		115. 25. 31,42				65,90	86. 48. 28,00	B.	
Sept. 16	ε ¹ Lyrae R.....	3. 11,0	13,4	15,4	13,4	13,5	8,3		7,616		233. 44. 3,00	30,293	56,5	52,8	13,22	50. 28. 35,54	B.	
	ε ¹ Lyrae.....	0. 39,1	44,0	43,4	42,1	43,7	37,1		7,616		79. 6. 31,46					50. 28. 35,36	B.	
	κ Aquilae R.....	1. 14,4	19,0	18,6	19,5	19,5	14,9		5,313		186. 52. 55,74	30,289	55,6	51,7	99,72	97. 21. 9,30	B.	
	κ Aquilae.....	0. 57,0	63,5	61,7	60,4	62,4	56,4		5,313		125. 57. 38,24					97. 21. 8,64	B.	
	H. C. 38334.....	0. 57,0	62,1	61,9	60,9	61,7	57,4				134. 46. 0,40				147,12	106. 10. 18,20	B.	
	α ² Capricorni.....	1. 8,0	12,5	11,4	10,3	11,0	4,9				131. 36. 9,97				126,54	103. 0. 7,19	B.	
	☽ S.L.....	0. 14,0	19,2	17,4	16,3	18,8	13,0		10,100	-2	138. 20. 11,77				177,23	109. 44. 59,68	B.	
	☽ S.L.....	...	...	...	...	...	...		10,082	-1	138. 20. 13,54					109. 45. 1,45	B.
	☽ S.L.....	...	...	...	...	...	...		10,182		138. 20. 12,72					109. 45. 0,63	B.
	☽ S.L.....	...	...	...	...	...	...		10,185	+1	138. 20. 13,83					109. 45. 1,74	B.
☽ S.L.....	...	...	...	...	...	...		10,232	+2	138. 20. 13,90					109. 45. 1,81	B.	
Sept. 18	(b) Zenith Point.....	4. 29,2	34,4	31,3	32,0	32,6	29,0	+8,0	7,793		66. 25. 17,32						B.	
	Victoria.....	0. 26,0	30,2	29,8	29,7	29,7	23,7	+7,2			105. 15. 28,30	29,846	54,7	50,3	46,79	76. 38. 5,77	B.	
	Flora.....	3. 39,1	41,0	45,0	42,3	40,7	35,2				128. 13. 41,43	29,835	53,8	47,6	108,61	99. 37. 20,72	B.	
Sept. 21	(g) ☉ N.L.....	3. 10,4	15,9	15,3	14,4	13,4	7,0	+5,1	15,795		117. 36. 12,40	29,594	60,0	64,6	69,51	88. 59. 11,89	B.	
	☉ S.L.....	0. 4,9	15,1	7,9	10,8	9,7	4,2		15,795		118. 8. 7,92				70,84	89. 31. 8,74	B.	
	τ ² Capricorni.....	4. 8,7	14,2	10,5	11,4	13,1	8,3				134. 4. 11,75	29,772	56,8	53,0	139,34	105. 28. 21,07	B.	
	(h) * R 20 ^h . 37 ^m . 39 ^s	1. 22,7	26,0	25,7	27,4	26,4	21,8				133. 51. 25,23					105. 15. 33,11	B.	
	Neptune.....	1. 33,4	36,0	37,3	35,6	35,3	31,5				129. 1. 35,12	29,792	54,5	51,0	111,37	100. 25. 16,47	B.	
	(i) ε Cephei R.....	1. 30,6	33,3	33,3	31,3	32,4	28,2		7,944		259. 37. 14,66				13,59	24. 34. 57,77	B.	
	ε Cephei.....	2. 33,8	36,2	37,7	34,9	35,5	31,3		7,944	+2	53. 13. 19,54					24. 34. 55,93	B.	
	(b) Victoria.....	4. 52,5	56,1	55,6	54,9	52,5	50,2				105. 44. 53,62	29,800	53,5	48,7	47,69	77. 7. 31,29	B.	
	(b) 27 Piscium.....	4. 39,4	42,6	41,4	39,0	40,3	36,8				122. 59. 39,87				88,02	94. 22. 57,87	B.	
	33 Piscium.....	3. 61,0	61,9	67,2	63,4	60,6	58,0				125. 9. 2,70				95,62	96. 32. 28,30	B.	
	(k) ☽ S.L.....	0. 11,0	15,0	13,6	11,6	11,3	8,8			-2	121. 35. 5,80				47,4	92. 58. 19,51	B.	
	☽ S.L.....	...	...	...	...	...	...		10,151	-1	121. 35. 5,71					92. 58. 19,42	B.
	☽ S.L.....	...	...	...	...	...	...		10,367		121. 35. 4,26					92. 58. 17,97	B.
	☽ S.L.....	...	...	...	...	...	...		10,519	+1	121. 35. 4,13					92. 58. 17,84	B.
	☽ S.L.....	...	...	...	...	...	...		10,632	+2	121. 35. 4,80					92. 58. 18,51	B.
	Flora.....	3. 30,2	30,0	33,5	31,2	28,9	26,7				128. 38. 16,71				47,4	110,40	100. 1. 57,09	B.
	(f) ε Piscium.....	0. 44,8	47,6	47,8	47,2	44,5	43,8				113. 45. 32,90				63,31	85. 8. 26,19	B.	

ONE REVOLUTION of the MICROMETER = 20",860. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) A close double star, observed as single. (b) Negative correction for Runs. (c) 'Very good.' Delay by the transit observation. (d) Very unsteady.
 (e) Rugged and rather unsteady. (f) Bright. (g) 'Good.' (h) Very faint from cloud. 'The north-preceding of two 10" apart.' (i) Very indefinite: the mercury unsteady. (k) Steady and well defined. (l) Assumed to be taken on the micrometer wire as left in the observation of the Moon.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.		Observer.
		A	B	C	D	E	F						Int.	Ext.				
		"	"	"	"	"	"						"	"		"	"	
Sept.23	Zenith Point.....	0. 2,1	8,0	6,0	4,1	4,0	2,0	+4,4	9,347		66.25.18,02							B.
Sept.25	H. C. 36501.....	3. 63,7	68,0	71,0	67,0	66,9	60,9	+5,1			136. 4. 6,93	29,772	58,4	57,0	152,93	107.28.29,84	T.	
	B.A.C. 6683.....	4. 23,9	27,1	30,6	27,1	26,1	21,9				140.24.26,87				196,55	111.49.33,40	T.	
	(a) H. C. 37071.....	3. 19,1	23,0	25,4	22,2	21,1	16,4				140.48.21,77				201,68	112.13.33,43	T.	
	ε Sagittarii.....	3. 43,2	46,5	49,0	44,0	44,2	38,4				135. 3.44,87				145,19	106.28. 0,04	T.	
	(b) B.A.C. 6914.....	4. 29,0	31,0	35,0	30,3	30,0	25,5		5,008		139.36.15,03	29,788	56,8	55,0	187,78	111. 1.12,79	T.	
	(c) H. C. 38932.....	4. 20,4	23,2	28,1	22,1	22,9	17,8				136.54.23,17				160,69	108.18.53,84	T.	
	(d) Victoria.....	1. 24,4	27,0	28,4	24,6	25,8	19,4				106.26.25,17	29,775	54,4	52,7	48,44	77.49.3,59	T.	
	51 Andromedæ R.	4. 30,3	31,8	36,4	31,0	30,7	28,0		9,792	+2	242. 4.35,80				4,40	42. 7.54,62	T.	
51 Andromedæ..	0. 49,4	52,2	53,0	49,9	49,9	45,8		9,792	+4½	70.45.57,87					42. 7.52,25	T.		
Sept.28	(e) ☉ S.L.....	2. 9,6	15,7	15,0	16,2	12,6	7,5	+5,1	11,130	+4	120.51.48,39	29,765	59,0	57,7	79,74	92.14.58,38	T.	
	H. C. 39210.....	3. 37,1	38,3	44,0	39,3	39,7	32,1				133.53.39,03	29,810	53,5	52,0	138,61	105.17.47,89	T.	
	H. C. 39518.....	3. 23,4	26,0	30,0	25,9	26,2	19,4				132.48.25,73				131,59	104.12.27,57	T.	
	B.A.C. 7113.....	3. 39,9	43,1	48,0	43,1	43,1	37,0			+1	143.18.42,93				243,38	114.44.36,56	T.	
	Bessel xx. 900....	3. 49,6	51,1	55,9	50,6	51,7	47,0				134.18.51,63				141,49	105.43. 3,37	T.	
	Bessel xx. 1419..	2. 3,8	7,9	10,3	6,0	6,1	2,0				132. 2. 6,37	29,814	52,0	50,5	127,36	103.26. 3,98	T.	
	H. C. 40866.....	0. 48,0	52,0	52,6	49,3	51,3	45,0				134.55.49,85				146,37	106.20. 6,47	T.	
	(f) H. C. 41070.....	0. 41,8	45,6	46,3	43,3	45,8	39,9				133.45.43,90				138,17	105. 9.52,32	T.	
	(g) H. C. 41276.....	2. 35,1	39,5	41,9	37,1	38,2	33,0				138.42.37,90				179,78	110. 7.27,93	T.	
	(h) Bessel xxi. 295..	2. 48,0	50,6	53,9	49,4	49,5	44,0				131.32.49,72				124,56	102.56.44,53	T.	
	(i) Bessel xxi. 416..	3. 39,9	42,0	45,3	42,3	42,4	35,9				132.48.41,93				132,04	104.12.44,22	T.	
	(k) Bessel xxi. 495..	4. 36,3	38,4	44,7	38,0	39,1	32,9			+1½	131.19.38,94	29,813	51,6	50,1	123,44	102.43.32,63	T.	
	ε Capricorni....	2. 57,8	61,3	64,0	61,0	62,1	55,4				138.43. 0,78				179,99	110. 7.51,02	T.	
	(l) Bessel xxi. 861..	0. 5,9	10,0	11,8	7,1	9,6	2,9				130.25. 7,90				118,55	101.48.56,70	T.	
	(m) H. C. 42467.....	4. 21,0	25,7	24,1	22,0	24,0	17,4				129. 9.22,27				112,27	100.33.4,79	T.	
	Bessel xxi. 1053..	3. 5,9	5,4	10,8	4,3	6,9	0,0				128.43. 6,08				110,21	100. 6.46,54	T.	
	α Aquarii.....	4. 16,5	18,1	24,4	18,0	17,3	12,0				119.39.18,45				77,62	91. 2.26,32	T.	
	Neptune.....	0. 11,1	15,5	15,9	13,0	14,4	8,2				129. 5.13,05	29,820	50,7	49,0	112,21	100.28.55,51	T.	
	(k)(n)Victoria.....	3. 47,0	46,9	55,1	47,0	47,0	42,0				106.58.48,15	29,822	49,9	47,5	49,98	78.21.28,38	T.	
	(o) Bessel xxiii. 896	2. 58,0	59,9	65,9	58,1	59,6	55,5				126. 3. 0,02				99,39	97.26.29,66	T.	
	(o) Bessel xxiii. 897	...	...	...	...	...	...				126. 3. 0,02				99,39	97.26.29,66	T.
	(p) Flora.....	0. 13,9	16,8	19,0	15,2	14,9	10,7				129.30.15,13	29,830	49,0	47,3	114,67	100.54. 0,05	T.	
Sept.30	(q) ☉ N.L.....	2. 60,8	64,3	67,0	64,9	62,6	56,0		14,272		121. 6.34,01	29,276	55,7	55,4	79,50	92.29.43,76	T.	
	☉ S.L.....	4. 61,2	67,5	66,0	65,0	65,4	58,1		14,272	+1½	121.38.34,34				81,10	93. 1.45,69	T.	
Oct. 1	(r) H. C. 38104....	2. 60,0	62,3	66,6	62,0	62,3	57,0				134.53. 2,22	29,533	53,2	51,4	144,39	106.17.16,86	T.	
	H. C. 38334....	0. 59,4	63,3	62,9	62,0	61,7	55,8				134.46. 1,02				143,55	106.10.14,82	T.	
	H. C. 38740....	4. 27,2	30,0	34,4	30,0	29,4	24,2				138.14.29,97				172,79	109.39.13,01	T.	
	H. C. 38932....	4. 24,4	26,1	32,8	26,2	25,9	20,6				136.54.26,75				160,51	108.18.57,51	T.	
	Bessel xxii. 517..	4. 7,1	9,2	13,7	9,4	8,1	4,2				127.39. 9,32	29,577	51,9	49,3	104,78	99. 2.44,35	T.	
	Neptune.....	1. 39,0	42,1	44,9	40,0	41,6	36,1				129. 6.40,90				111,36	100.30.22,51	T.	
	Bessel xxii. 723..	0. 25,0	29,6	29,1	27,4	28,7	22,2				129.30.27,07				113,25	160.54.10,57	T.	
	Bessel xxii. 797..	3. 14,5	16,2	20,0	15,9	15,1	10,0				132.23.15,85				128,75	103.47.14,85	T.	
	(s) Victoria.....	1. 51,1	55,0	56,6	52,4	51,8	48,4				107.31.52,87	29,597	51,0	47,0	50,63	78.54.33,75	T.	
	(t) Bessel xxiii. 778.	3. 12,9	14,3	18,0	14,3	12,9	8,5				104.43.14,03				45,82	76. 5.50,10	T.	
	(u) * R. 23 ^b . 46 ^m . 55 ^s	1. 10,1	14,0	13,9	12,1	11,2	8,2				104.51.11,78				46,04	76.13.48,07	T.	
	H. C. 47106.....	4. 15,7	16,5	21,9	17,7	15,0	11,8				104.49.17,17				45,99	76.11.53,41	T.	
	(d) Flora.....	4. 18,8	20,8	25,8	20,4	18,7	14,5				129.49.20,57	29,600	50,4	46,7	115,50	101.13. 6,32	T.	
Oct. 2	Zenith Point....	0. 5,9	11,1	9,7	8,7	7,3	5,0		9,531		66.25.17,75							T.
	(k)(x)Victoria.....	2. 57,0	60,0	63,9	57,1	58,0	53,0				107.42.58,67	29,827	51,5	47,5	51,30	79. 5.40,22	T.	
Oct. 5	(m) ☉ S.L.....	4. 43,2	52,1	47,9	48,0	47,5	43,0		9,931		123.34.48,36	29,710	55,4	55,2	88,55	94.58. 7,16	T.	
	☉ N.L.....	2. 43,2	49,0	49,1	47,0	45,3	40,2		9,931		123. 2.47,54				86,77	94.26. 4,56	T.	
	Bessel xxii. 119..	4. 10,8	14,0	19,9	14,5	13,9	9,9				124.54.14,55	29,729	46,9	43,6	95,49	96.17.40,29	T.	
	Bessel xxii. 230..	0. 44,0	49,0	49,0	47,1	48,4	42,3				131.15.46,77				124,39	102.39.41,41	T.	

ONE REVOLUTION of the MICROMETER = 20",860. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) 'The north-preceding of two.' The other is H. C. 37096. (b) Too much clouded for satisfactory observation. The degrees of the Pointer reading have been altered conjecturally from 130° to 139°. (c) Very faint from cloud. (d) 'Good.' No object near. (e) Hid before by cloud. (f) 'One of Mag. 8 and less N.P.D. preceded.' (g) 'Preceded by an equal one of less N.P.D.' (h) 'The northern and brighter.' The other is Bessel xxi. 296. (i) Very faint. (k) 'No object near this.' (l) The Pointer reading has been diminished 10". (m) Negative correction for Runs. (n) 'Of Mag. 9.' (o) 'Both bisected, being of the same N.P.D.' (p) 'Good.' (q) Unsteady. (r) 'A fainter of less N.P.D. followed.' (s) Several other objects of greater N.P.D. in the field. (t) 'One rather brighter of greater N.P.D. preceded.' (u) 'The following of two.' (x) Faint, but the observation not doubtful.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.	Observer.	
		A	B	C	D	E	F						Int.	Ext.				
		"	"	"	"	"	"						"	"				"
Oct. 5	(a) Bessel xxii. 357	4.32,4	38,5	38,0	34,9	37,1	31,9	+5,1		+2	130.44.35,27	29,729	46,9	43,6	121,54	102.8.27,06	T.	
	(b) Bessel xxii. 459	3.2,5	5,0	10,0	6,0	5,3	0,5				130.53.5,42				122,31			
	Neptune	3.23,8	25,4	31,6	26,4	25,9	21,0				129.8.26,27				113,42			
	Bessel xxii. 723	0.23,0	27,0	29,0	26,1	26,6	21,0				129.30.25,52				115,21			
	Bessel xxii. 822	4.31,2	33,0	40,3	35,1	34,6	29,4			+1	125.19.34,68				97,10			
	λ Aquarii	3.38,1	42,0	47,2	42,2	40,6	37,1				126.58.41,82				103,71			
	B.A.C. 7993	2.52,3	55,0	59,1	54,0	54,0	48,1				124.12.54,25				93,00			
	(c) Victoria	1.11,9	15,1	18,1	15,1	14,1	11,1				108.16.14,43		29,723	44,4	42,0	52,72		
	(d) Flora	1.2,8	6,2	7,9	4,4	4,0	0,8				130.11.4,53				41,2	119,17		
	45 Piscium	0.7,8	11,6	13,9	10,0	9,0	5,4			+2	111.45.9,73					59,63		
	(e) Bessel o. 385	2.35,0	37,0	41,9	36,2	35,1	37,0				111.42.37,48					59,54		
	Bessel o. 477	3.39,0	41,5	46,1	42,2	39,3	36,1				115.8.41,33					67,13		
	Bessel o. 544	2.6,4	9,2	11,6	8,8	6,6	3,4				115.47.8,03					68,66		
Oct. 7	(f) ⊙ S.L.	1.47,5	54,6	52,5	52,2	51,0	46,0	+7,7	9,726		124.20.56,84	29,324	57,7	56,0	89,87	95.44.16,41	T.	
	⊙ N.L.	3.45,3	49,4	53,0	50,3	49,7	42,3				123.43.55,04				88,05			
	H. C. 40031	0.36,9	42,0	41,1	40,8	41,0	35,5				106.50.39,72		29,445	50,9	50,1	48,85		
	H. C. 40973. <i>nf.</i>	0.16,4	21,4	20,9	18,6	20,0	14,1				85.5.19,27					19,40		
	(a) Neptune	4.18,7	24,4	23,8	21,4	23,1	17,9			+2	129.9.21,25				111,07			
	(d) Victoria	3.17,0	20,1	24,9	20,9	18,6	14,1				108.38.20,12				52,18			
	Bessel xxiii. 703	1.29,0	33,2	35,2	31,6	34,0	27,3				124.56.32,10				93,71			
	(g) Bessel xxiii. 776	1.24,5	27,9	29,0	27,1	27,1	21,4				104.46.26,55				45,51			
	(h) Bessel xxiii. 869	3.23,3	26,7	30,5	26,5	25,7	20,0				117.28.26,35				71,09			
	Bessel xxiii. 992	1.42,0	44,9	47,0	43,7	44,0	38,9				104.36.43,85				45,25			
	(i) Flora	0.13,3	18,0	18,9	15,5	17,6	13,2				130.20.16,15	29,466	49,4	48,4	117,17			
	Bessel o. 301	2.46,2	43,9	51,9	48,3	49,0	42,9				111.42.48,58				58,17			
	45 Piscium	...	...	...	...	...	...				111.45.11,55				58,24
	(k) Bessel o. 426	4.45,6	50,1	49,0	49,3	48,4	43,1				3,146				111.9.48,82	57,06		
	(l) Bessel o. 418								111.9.27,77	57,05		
Oct. 8	(m) ⊙ N.L.	1.34,9	41,2	40,1	39,9	39,3	33,5		9,419		124.11.50,69	29,603	53,0	56,0	90,19	95.35.10,58	T.	
	(n) Victoria	4.10,1	12,7	18,9	13,1	11,2	7,6				108.49.13,35				52,92			
	(o) Flora	4.16,3	18,3	24,0	18,7	19,9	14,5				130.24.19,72		29,730	50,1	49,0	118,42		
	(p) δ Andromedæ R.	4.4,3	6,0	9,8	6,5	6,5	3,3			6,222	224.15.25,58				23,66			
	δ Andromedæ	3.42,0	41,9	48,0	42,2	43,3	37,7				88.35.4,04							
Oct. 9	(q) ⊙ S.L.	2.4,5	9,8	9,9	9,6	7,8	2,0		11,138	+2	125.6.43,46	29,889	53,6	55,0	94,54	96.20.7,70	T.	
	⊙ N.L.	1.2,7	8,3	6,8	7,0	6,6	1,9				124.34.41,12				92,60			
	Zenith Point	0.19,1	23,8	22,6	22,1	20,5	18,5				66.25.18,30							
Oct. 10	⊙ N.L.	3.9,4	14,0	16,9	15,0	13,6	4,8		12,043		124.57.30,48	29,995	51,0	51,5	94,98	96.20.55,16	T.	
	⊙ S.L.	0.11,8	18,9	17,7	16,0	16,6	7,0				125.29.32,11				96,99			
Oct. 11	(r) ⊙ S.L.	2.8,5	13,9	15,0	13,7	12,1	8,0		10,021		125.52.11,69	29,900	48,1	47,0	99,05	97.15.40,74	T.	
	⊙ N.L.	0.12,1	18,9	17,7	18,1	16,0	12,4				125.20.13,95				96,99			
	(s) ⊙ S.L.	2.33,1	37,0	39,8	35,2	37,0	30,7			-2	139.53.5,15		30,020	48,0	45,5	196,39		
	⊙ S.L.				139.53.7,36							111.18.11,24
	⊙ S.L.			-1	139.53.7,36							111.18.13,45
	⊙ S.L.				139.53.6,29							111.18.12,68
	⊙ S.L.			+1	139.53.6,40							111.18.12,49
	⊙ S.L.				139.53.7,35							111.18.13,44
	Bessel xxi. 1309	0.45,7	49,9	48,9	49,5	48,1	44,1			+2	133.45.47,90		30,120	45,9	42,0	142,07		
	B.A.C. 7709	2.29,7	33,8	36,9	33,8	33,6	27,8				132.37.33,25					134,58		
	Bessel xxii. 343	2.6,7	10,1	13,0	10,2	10,0	4,1				132.32.9,58	30,120	45,6	41,3	134,22			
	Bessel xxii. 414	0.20,9	25,8	24,7	23,5	23,1	19,2				131.35.22,97					128,51		
	Neptune	0.52,1	56,0	57,4	54,0	55,7	50,1				129.10.54,45					115,63		
	(t) Victoria	1.33,2	37,5	38,9	36,5	35,4	31,0				109.21.35,83	30,134	46,4	49,9	54,63			
	(a) Flora	4.39,8	45,5	45,3	43,0	44,7	39,6				130.34.42,90					100.44.20,16		
	Bessel o. 1013	0.12,0	15,2	16,9	13,3	14,0	9,4				111.5.13,52	30,179	44,6	40,1	59,29			
	Bessel i. 22	1.8,5	12,0	14,5	10,1	9,3	6,0				108.16.10,37					53,74		

ONE REVOLUTION of the MICROMETER = 20",860. ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.

(a) Negative correction for Runs. (b) 'Rather brighter than a following star which the wire nearly bisected.' The following star is Bessel xxii. 463.
 (c) 'Another object south-preceding.' (d) 'Good.' (e) No object near. (f) The Circle reading was 1' greater. (g) 'The south-preceding of two.'
 (h) 'The middle one of three of equal magnitude nearly in a line.' (i) 'An object of the same magnitude south-following.' (k) This star was bisected first.
 (l) Place of bisection not noted. (m) Cloudy. (n) 'The southern of two objects.' (o) Visible at intervals through clouds. (p) 'Worth little: the mercury waving and disturbed by the wind.' Great discordance between the direct and reflection observations. (q) Unsteady. Delay by passing clouds.
 (r) Neither observation satisfactory: clouds continually obscuring. (s) Excessively faint and the observation doubtful. (t) The evening was generally cloudy and rainy.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"					Inch.	"	"		"	"	"	
Oct. 11	(a) Bessel 1. 110....	3. 30,9	32,7	37,3	32,1	31,4	27,5	+7,7			110. 38. 32,88	30,179	44,6	40,1	58,38	82. 1. 20,96			T.
Oct. 12	(b) ☉ N.L.....	2. 41,4	46,9	49,8	47,0	45,4	39,4	+7,8	9,876		125. 42. 48,27	30,310	47,6	48,8	99,41	97. 6. 18,07			T.
	(c) ☉ S.L.....	4. 47,0	54,1	53,5	52,0	52,8	46,1		9,876		126. 14. 53,47				101,54	97. 38. 25,40			T.
	H. C. 39116....	3. 61,0	64,2	70,3	64,9	65,1	59,5				137. 24. 5,23	30,339	45,7	42,1	172,73	108. 48. 48,35			T.
	B.A.C. 7040....	2. 11,0	16,0	17,9	14,1	15,2	10,2				143. 2. 14,65				247,72	114. 28. 12,76			T.
	H. C. 39518....	3. 17,9	22,0	25,2	21,1	20,9	15,8				132. 48. 21,33				136,68	104. 12. 28,40			T.
	(d) Victoria.....	2. 6,3	10,0	12,2	8,1	7,3	4,5				109. 32. 8,63	30,324	44,0	41,5	56,27	80. 54. 55,29			T.
	(e) Flora.....	2. 26,0	29,8	34,0	28,9	29,8	24,7			+1	130. 37. 29,46	30,319	43,5	40,5	124,10	102. 1. 23,95			T.
	Bessel o. 266....	2. 25,3	28,8	32,4	27,9	27,7	23,0				123. 2. 28,17				91,25	94. 25. 49,81			T.
	10 Ceti.....	4. 19,9	21,9	27,6	22,1	22,0	17,5				119. 29. 22,95				80,04	90. 52. 33,38			T.
	(f) Bessel o. 385....	2. 35,8	38,4	42,7	37,3	38,0	32,5				111. 42. 38,12				60,82	83. 5. 29,33			T.
	Bessel o. 678....	4. 23,0	24,9	32,3	26,1	25,0	19,1			+1½	117. 4. 26,23	30,315	42,4	38,8	73,65	88. 27. 30,27			T.
	Bessel o. 797....	0. 59,9	65,4	67,1	63,7	62,1	58,3				109. 31. 3,02				56,54	80. 53. 49,95			T.
	(g)(c) B.A.C. 270....	4. 48,2	53,2	54,8	50,6	50,4	46,9				112. 34. 50,63				62,91	83. 57. 43,93			T.
	B.A.C. 286....	0. 61,0	64,5	67,9	63,0	63,2	57,8				110. 36. 3,17				58,72	81. 58. 52,28			T.
	Bessel o. 1048....	1. 11,1	15,1	17,0	13,9	13,0	8,3				115. 36. 13,38				69,93	86. 59. 13,70			T.
Oct. 14	Zenith Point....	0. 11,0	16,1	16,0	14,4	13,5	12,0		9,822		66. 25. 17,61								T.
Oct. 15	☉ N.L.....	0. 6,0	12,8	12,4	11,4	11,0	6,0		10,460		126. 50. 0,38	30,009	49,3	47,0	103,31	98. 13. 34,08			T.
	☉ S.L.....	2. 11,9	18,0	17,5	17,0	16,6	11,1		10,460		127. 22. 6,35				105,57	98. 45. 42,31			T.
	(h) H. C. 39210....	3. 54,0	57,9	62,1	59,0	59,2	52,1		11,000		133. 53. 37,56	30,040	46,1	40,2	143,13	105. 17. 51,08			T.
	(h) H. C. 39518....	3. 15,8	19,9	22,0	20,9	19,1	14,4				132. 48. 19,53				135,87	104. 12. 25,79			T.
	H. C. 39671....	4. 49,0	50,7	55,9	52,8	52,4	45,8			+2	134. 24. 52,18				146,84	105. 49. 9,41			T.
	(i) Bessel xx. 823....	1. 30,1	33,9	34,9	33,1	34,9	29,8				134. 31. 33,18				147,65	105. 55. 51,22			T.
	Capricorni....	3. 22,4	24,6	31,0	25,4	26,0	22,3		10,015		136. 3. 25,86	30,030	41,5	39,1	160,00	107. 27. 56,25			T.
	☉ S.L.....	0. 40,2	44,0	45,9	43,4	44,3	40,0			-2	134. 45. 38,76	30,027	41,4	39,3	149,61	106. 9. 58,76			T.
	☉ S.L.....	...	...	...	...	...	...		10,056	-1	134. 45. 39,83				...	106. 9. 59,83			T.
	☉ S.L.....	...	...	...	...	...	...		10,123		134. 45. 40,58				...	106. 10. 0,58			T.
	☉ S.L.....	...	...	...	...	...	...		10,261	+1	134. 45. 39,77				...	106. 9. 59,77			T.
	☉ S.L.....	...	...	...	...	...	...		10,403	+2	134. 45. 38,79				...	106. 9. 58,79			T.
	Aquarii.....	1. 13,6	16,8	19,1	16,0	17,5	12,0				133. 11. 16,15	30,027	41,4	39,0	138,64	104. 35. 25,18			T.
	θ Aquarii.....	2. 43,0	45,7	50,9	46,0	46,0	40,5				127. 7. 46,07				106,37	98. 31. 22,84			T.
	Neptune.....	2. 17,5	19,9	24,1	20,0	20,4	16,9				129. 12. 20,40	30,028	41,2	39,0	115,96	100. 36. 6,75			T.
	(k) Victoria.....	2. 52,9	54,0	58,0	54,2	53,3	49,3				110. 2. 54,37	30,035	40,5	38,0	57,16	81. 25. 41,92			T.
	(l) Polaris SP.	4. 39,1	40,0	47,5	40,0	42,0	35,6				27. 9. 41,83	30,012	49,0	53,1	47,49	1. 29. 15,27			T.
Oct. 16	(m) ☉ S.L.....	4. 13,8	18,0	22,4	20,0	18,0	12,3				127. 44. 18,53	30,009	51,4	54,0	105,66	99. 7. 54,58			T.
	(n) H. C. 38765....	3. 23,1	27,9	30,4	25,6	27,9	20,9				135. 53. 26,60	30,012	50,1	48,7	155,36	107. 17. 52,35			T.
	(o) β Capricorni....	0. 37,0	42,9	41,7	39,9	42,1	36,0				133. 50. 41,13				140,16	105. 14. 51,68			T.
	(o)(p) B.A.C. 6992....	...	...	...	...	...	...		9,635		133. 50. 48,74				140,17	105. 14. 59,30			T.
	H. C. 39210....	3. 35,4	38,9	41,9	38,0	39,9	31,7				133. 53. 38,57				140,49	105. 17. 49,45			T.
	H. C. 39603....	3. 50,7	54,0	57,9	52,9	55,5	47,4				134. 53. 54,08			46,9	148,20	106. 18. 12,67			T.
	τ Capricorni....	4. 6,0	10,5	14,0	9,3	10,1	3,1				134. 4. 9,92				142,23	105. 28. 22,54			T.
	H. C. 39981....	2. 35,1	41,1	42,5	38,0	40,1	33,4				138. 27. 39,03				179,66	109. 52. 29,08			T.
	Aquarii.....	1. 15,0	19,0	20,9	17,1	18,4	13,6				133. 11. 17,67	30,012	45,6	43,6	137,24	104. 35. 25,30			T.
	(q) θ Aquarii.....	2. 46,1	48,2	52,1	46,9	48,3	46,6				127. 7. 48,77				105,31	98. 31. 24,47			T.
	(r) ☉ S.L.....	3. 60,0	62,7	68,0	62,0	63,3	56,2			+1	131. 29. 5,58	30,010	46,9	45,6	126,30	102. 53. 2,27			T.
Oct. 17	☉ N.L.....	3. 12,8	19,0	20,5	17,6	18,4	12,7		7,290		127. 34. 14,21	29,998	53,1	56,1	104,45	98. 57. 49,05			T.
	☉ S.L.....	0. 19,8	28,0	26,1	24,5	24,3	19,1		7,290		128. 6. 20,26				106,77	99. 29. 57,42			T.
	(s) λ Aquarii.....	2. 42,1	48,1	50,5	45,2	46,7	41,1		7,290		126. 58. 42,88	30,010	50,9	50,2	103,23	98. 22. 16,50			T.
	φ Aquarii.....	2. 34,0	40,9	42,3	39,2	39,0	33,4				125. 27. 38,80				97,13	96. 51. 6,32			T.
	(t) ☉ S.L.....	3. 12,1	16,8	19,7	15,0	15,0	9,8			-2	127. 38. 9,80	30,007	50,1	49,5	106,18	99. 1. 46,37			T.
	☉ S.L.....	...	...	...	...	...	...		10,089	-1	127. 38. 10,84				...	99. 1. 47,41			T.
	☉ S.L.....	...	...	...	...	...	...		10,227		127. 38. 10,83				...	99. 1. 47,40			T.
	☉ S.L.....	...	...	...	...	...	...		10,402	+1	127. 38. 9,99				...	99. 1. 46,56			T.
	☉ S.L.....	...	...	...	...	...	...		10,510	+2	127. 38. 10,50				...	99. 1. 47,07			T.

ONE REVOLUTION of the MICROMETER = 20",860. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) 'Two preceding.' (b) Unsteady. (c) Negative correction for Rans. (d) Excessively faint and difficult to bisect. (e) The sky was very thick this evening: Neptune not seen. (f) Too faint for certainty of bisection. (g) The Circle reading has been increased 5'. (h) Too faint to be well observed. (i) 'A brighter north-preceding.' (k) 'A brighter object of greater N.P.D. preceded 3 or 4 seconds.' (l) Time by Molyneux, 13h. 8m. 11s. By the times of transit of zodiacal stars, noted for the sake of identifying the stars, Molyneux was ascertained to be 42s. fast. (m) One limb lost by wrong setting. (n) The Circle reading has been increased 1', to agree with H. C. and an observation in 1852. (o) The Circle reading has been diminished 4'. (p) 'Precedes β Capricorni about 10s' but was bisected later. (q) Faint from passing clouds. (r) Seen only at this wire. (s) Seen through a break in the clouds. (t) Dense cloud; the Moon barely visible, especially at the 1st and 5th wires.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for S.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						Inch.	"			
Oct. 17	(a) Victoria	2.60,3	65,9	67,0	62,0	63,1	57,6	+7,8			110.23.34,3	30,007	50,1	49,5	56,42	81.45.50,24	T.
	(b)(c) 27 Piscium.....	4.37,9	44,9	42,0	39,6	43,0	36,5				122.59.40,55	29,998	51,2	51,3	88,14	94.22.59,08	T.
	30 Piscium	1.62,7	68,7	70,7	66,4	68,1	62,1				125.27.7,00				96,88	96.50.34,27	T.
Oct. 18	⊙ S.L.....	3.13,1	19,1	21,0	16,1	17,4	9,9			+3	128.28.15,95	30,066	56,0	60,4	107,71	99.51.54,05	T.
	(d) Neptune.....	3.21,0	26,7	29,2	24,5	26,1	19,2				129.13.25,33	30,011	55,7	55,7	112,05	100.37.7,77	T.
Oct. 19	⊙ N.L.....	3.6,6	12,0	13,3	9,0	9,5	2,9		10,751		128.17.54,05	29,840	54,7	58,1	106,63	99.41.31,07	T.
	⊙ S.L.....	0.10,7	20,9	17,4	15,9	17,5	11,1				128.50.0,00				109,05	100.13.39,44	T.
Oct. 21	Neptune.....	4.11,0	13,6	20,3	15,3	13,9	8,0	+4,2			129.14.14,27	30,051	45,0	41,0	115,70	100.38.0,12	T.
	Bessel xxii. 723.	0.23,1	27,0	27,5	25,5	25,2	21,0				129.30.24,93				117,05	100.54.12,13	T.
	Flora.....	2.45,3	47,1	50,9	45,1	45,1	39,0				130.47.45,80	30,076	44,4	38,0	124,69	102.11.40,64	T.
	(b) ξ ² Ceti.....	4.50,9	56,0	56,6	54,0	52,8	50,1	+4			110.49.53,70	30,089	43,4	38,0	58,85	82.12.42,70	T.
	ν Ceti.....	0.41,9	45,8	46,9	44,0	43,5	41,5				113.40.44,03				64,99	85.3.39,17	T.
	(b) S.L.....	4.12,5	17,0	15,2	13,9	11,9	10,1				109.44.7,52				56,64	81.6.54,31	T.
	» S.L.....	...	...	...	...	...	...	-1	10,138		109.44.7,52					81.6.54,31	T.
	» S.L.....	...	...	...	...	...	...				109.44.9,34					81.6.56,13	T.
	» S.L.....	...	...	...	...	...	...				109.44.8,27					81.6.55,06	T.
	» S.L.....	...	...	...	...	...	...	+2	10,614		109.44.6,51					81.6.53,30	T.
	(e) α Tauri.....	2.25,0	26,9	29,3	26,6	24,3	19,3				110.7.12,76	30,080	42,9	37,5	57,45	81.30.0,36	T.
	(f) ⊙ S.L.....	2.36,9	42,1	44,8	40,4	41,1	35,0		9,245		131.17.56,17	29,640	45,0	45,6	123,71	102.41.50,03	T.
	⊙ N.L.....	0.26,2	33,1	32,9	29,5	30,3	24,5				130.45.45,23				120,78	102.9.36,16	T.
	Bessel xx. 1051.	2.27,0	31,1	34,9	28,1	31,1	25,0				134.2.29,88	29,751	42,6	38,1	143,42	105.26.43,45	T.
	H. C. 40330.....	3.28,3	32,1	37,0	31,0	31,9	27,6				138.8.31,82				178,12	109.33.20,09	T.
	B.A.C. 7263.....	1.39,8	43,8	46,2	41,3	42,6	39,1				135.11.42,37				151,91	106.36.4,43	T.
	(b) H. C. 40684.....	4.60,2	66,6	65,6	62,2	64,8	59,9				138.25.3,22				180,98	109.49.54,35	T.
	Bessel xx. 1486.	1.36,9	42,2	45,9	38,6	40,6	35,5				132.11.40,18				131,37	103.35.41,70	T.
	H. C. 40994.....	3.43,0	46,8	52,4	45,1	47,0	42,9				134.53.46,72				149,63	106.18.6,50	T.
	(g) Bessel xxi. 378.	1.26,0	31,1	33,8	28,0	28,6	24,9	+2½			130.11.28,76	29,765	42,3	39,3	119,85	101.35.18,76	T.
	(b) Bessel xxi. 495.	4.35,6	42,0	41,7	37,5	40,0	35,8				131.19.38,72				126,03	102.43.34,90	T.
	Neptune.....	0.28,9	33,0	35,0	30,1	33,4	27,1				129.15.31,32	29,781	42,1	40,0	115,02	100.39.16,49	T.
Oct. 28	(h) Victoria.....	3.31,9	34,3	39,0	33,4	33,0	29,5		12,914		111.43.34,02	29,797	42,0	38,9	60,00	83.6.24,17	T.
	H. C. 46040.....	...	...	...	...	...	...				111.42.33,23				59,98	83.5.23,36	T.
	(i) Bessel xxiii. 723.	3.37,7	40,2	45,9	39,1	39,8	35,0				128.23.40,13				111,22	99.47.21,50	T.
	Bessel xxiii. 808.	3.15,0	18,3	23,7	17,3	17,2	13,2				116.33.17,92				71,06	87.56.19,13	T.
	Bessel xxiii. 896.	2.56,0	60,5	65,4	58,0	59,7	55,1				126.2.59,53				101,10	97.26.30,78	T.
	Bessel xxiii. 897.	...	...	...	...	...	...				126.2.59,09				101,10	97.26.30,34	T.
	Bessel xxiii. 1041.	0.9,9	15,5	16,9	13,7	14,0	9,1	+2	10,017		123.25.13,22				91,29	94.48.34,66	T.
	(k) Flora.....	1.49,0	54,1	57,3	52,0	53,2	48,2				130.41.52,57	29,786	41,6	37,2	123,17	102.5.45,89	T.
	H. C. 245.....	0.39,1	44,9	45,1	42,1	42,0	37,9				121.5.41,95				83,95	92.28.56,05	T.
	Bessel o. 266.....	2.26,6	28,9	33,8	28,0	28,4	24,0				123.2.28,63				90,27	94.25.49,05	T.
	10 Ceti.....	4.20,6	23,0	29,1	22,3	22,0	17,1				119.29.22,97				79,18	90.52.32,30	T.
	⊙ N.L.....	1.41,9	48,0	49,4	44,1	44,4	40,2		10,981		131.26.24,46	29,301	47,5	48,5	122,34	102.50.16,95	T.
	⊙ S.L.....	3.53,1	57,6	61,8	54,9	56,6	50,8				131.58.35,89				125,36	103.22.31,40	T.
	Zenith Point....	0.31,1	35,8	36,9	32,7	33,8	32,0				66.25.17,85						T.
	ζ Cygni R.....	4.2,0	3,6	9,1	2,2	2,5	0,0	+4,2			223.50.8,42	29,283	45,1	42,8	24,10	60.22.41,53	T.
	ζ Cygni.....	4.18,0	19,1	27,1	18,6	19,9	13,9				89.0.24,65					60.22.38,90	T.
	α Cephei R.....	2.20,0	22,1	26,1	20,0	21,1	19,0				256.9.53,07				9,95	28.2.22,83	T.
	α Cephei.....	3.6,0	8,1	13,9	5,9	10,0	4,5	+2½			56.40.41,94					28.2.22,14	T.
	β Cephei R.....	0.0,5	4,8	5,6	1,1	2,8	1,8				264.6.50,76				18,48	20.5.16,61	T.
	β Cephei.....	1.53,9	58,4	61,1	54,5	57,9	52,7				48.43.44,90					20.5.16,57	T.
Oct. 29	(l) Neptune.....	0.57,0	61,9	63,9	59,0	60,6	56,2			+2¾	129.15.59,90	29,276	43,6	41,4	112,78	100.39.42,83	T.
	(b)(m) S.L.....	4.49,7	56,1	55,9	52,0	53,6	49,3				103.49.46,04	29,400	39,8	35,0	45,20	75.12.21,39	T.
	Regulus.....	0.35,5	40,9	41,0	37,0	37,3	33,0				105.55.37,53	29,404	39,5	35,6	48,66	77.18.16,34	T.
Oct. 29	⊙ S.L.....	3.4,6	10,2	13,1	8,6	8,4	2,3		8,681		132.18.35,84	29,487	46,1	45,1	129,01	103.42.35,00	T.
	⊙ N.L.....	0.52,1	60,9	59,6	58,3	56,4	52,0				131.46.24,20				125,87	103.10.20,22	T.

ONE REVOLUTION of the MICROMETER = 20",860. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) 'A brighter object of less N.P.D. preceded.' (b) Negative correction for Runs. (c) Seen only occasionally through clouds. (d) Seen with difficulty through cloud. (e) Assumed to be taken on the micrometer wire as left in the preceding observation. (f) Clouded; almost too faint with the dark glass and too bright without. (g) Faint; bisection doubtful. (h) The middle and faintest of three objects, the last of which was afterwards found to be H. C. 46040. (i) 'A brighter of greater N.P.D. follows.' (k) A brighter object lower in the field was noticed. (l) Very faint from cloud. (m) Observed hurriedly: the shutters could not be opened earlier.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5".	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refracti- tion.	Apparent N.P.D. from the Observation.	Observer.															
		A	B	C	D	E	F						Int.	Ext.																		
		"	"	"	"	"	"						"	"				"	Inch.	"												
Nov. 4	H. C. 40081.....	0.35,9	42,2	43,0	39,8	43,3	34,9	+9,5	18,761	+4	106.50.40,05	29,844	49,4	48,1	49,72	78.13.20,26	T.															
	9 Aquarii.....	2.26,1	32,1	34,1	30,5	34,1	25,0				132.42.31,10					132,19	104.6.33,78	T.														
	θ Capricorni.....	4.45,7	48,9	54,7	48,0	51,7	43,1				136.24.50,20					159,03	107.49.19,72	T.														
	H. C. 41000.....	4.3,3	7,0	12,1	5,6	9,1	2,0				136.9.7,82					156,83	107.33.35,14	T.														
	H.C. 41191.....	2.57,3	60,8	64,7	59,2	63,2	54,3				136.33.0,87					160,19	107.57.31,55	T.														
	Bessel xxii. 208..	1.14,7	19,9	21,3	16,6	20,6	12,9				131.26.18,08				29,905	48,0	46,9	125,26	102.50.13,83	T.												
	Bessel xxii. 388..	4.12,3	15,9	22,0	14,9	18,2	9,5				132.9.16,82							129,41	103.33.16,72	T.												
	σ Aquarii.....	2.33,0	35,9	38,6	32,0	36,9	28,4				130.2.34,95							117,76	101.26.23,20	T.												
	(a) Bessel xxii. 484.	...	...	...	...	...	...				129.59.32,19							117,50	101.23.20,18	T.						
	Neptune.....	3.11,1	14,1	18,9	13,0	16,1	7,2				129.17.7,20							113,98	100.40.51,67	T.												
	(b) Bessel xxii. 747..	3.44,1	47,1	52,2	47,0	50,0	41,0				131.43.48,10							126,92	103.7.45,51	T.												
	Bessel xxii. 748.	...	...	...	...	...	...				131.42.46,46							126,83	103.6.43,78	T.						
	H. C. 44661.....	1.39,7	43,2	46,1	41,0	45,2	37,5				133.26.42,65							137,51	104.50.50,65	T.												
	Bessel xxii. 981..	1.19,5	23,0	24,9	20,1	24,8	16,1				128.46.21,83							111,53	100.10.3,85	T.												
	H. C. 44904.....	4.6,5	9,1	14,0	8,9	11,1	2,5				120.49.10,02							81,77	92.12.22,28	T.												
	(c) Bessel xxii. 1156	4.50,5	52,0	60,1	51,9	56,1	46,0				130.40.5,38							121,01	102.3.56,88	T.												
	B.A.C. 8152.....	3.25,1	27,1	31,0	25,4	28,4	21,2				119.8.27,51							29,923	46,5	44,8	77,31	90.31.35,31	T.									
	Victoria.....	1.41,8	45,0	48,0	42,1	46,3	38,0				112.46.44,13										61,75	84.9.36,37	T.									
	(d) Bessel xxiii. 1208	2.41,6	46,0	50,0	42,8	47,2	39,2				150.12.45,35										29,924	46,4	45,0	119,17	101.36.35,01	T.						
	(e) Flora.....				130.11.38,26													119,08	101.35.27,83	T.						
	(f) Bessel ii. 746..	4.52,3	57,0	57,0	55,0	56,0	49,5				105.44.54,43													29,959	45,9	45,0	48,31	77.7.33,23	T.			
	ρ Arietis.....	1.58,1	61,1	64,9	61,6	61,9	56,0				101.12.1,38																40,96	72.34.32,83	T.			
	Bessel ii. 747....	0.39,0	43,4	43,6	40,5	43,6	36,5				106.10.41,32																49,06	77.33.20,87	T.			
	(h) H. C. 5771.....	1.33,5	38,8	39,9	36,2	38,5	31,9				102.16.36,97																42,63	73.39.10,09	T.			
	Bessel iii. 43.....	2.30,9	33,2	37,9	31,9	34,3	28,0				108.2.33,52																52,39	79.25.16,38	T.			
	H. C. 6032.....	2.63,3	64,7	69,8	63,0	66,1	58,6				96.3.5,23																33,55	67.25.29,27	T.			
Nov. 5	Bessel xxi. 295..	2.48,4	52,6	55,2	49,2	53,0	45,1	131.32.51,48	29,862	52,9	52,6	124,23	102.56.46,20	T.																		
	Bessel xxi. 378..	1.33,1	38,0	39,0	33,1	38,0	29,9	130.11.35,68				116,98	101.35.23,15	T.																		
	Neptune.....	2.12,9	18,0	19,9	15,1	18,4	9,0	129.17.16,27				29,870	52,0	51,9													112,70	100.40.59,46	T.			
	Bessel xxi. 1292	1.15,2	20,9	22,0	16,0	20,1	12,9	130.6.18,27																			29,880	51,6	51,3	116,92	101.30.5,68	T.
	B.A.C. 8094.....	0.8,7	16,3	14,9	11,9	15,6	7,0	122.55.12,47																						87,55	94.18.30,51	T.
	H. C. 45641.....	2.49,3	53,0	55,0	50,0	54,2	45,3	122.2.52,03							84,73	93.26.7,25	T.															
	Bessel xxiii. 325.	4.53,9	56,9	62,2	56,2	58,0	49,4	120.44.57,65							80,76	92.8.8,90	T.															
	11 Piscium.....	3.24,5	28,9	32,5	27,7	28,3	21,2	121.13.28,27							82,18	92.36.40,94	T.															
	(i) Victoria.....	2.33,1	36,0	40,0	33,1	36,9	30,9	112.52.35,82							29,889	51,3	50,6													61,16	84.15.27,47	T.
	Bessel xxiii. 703.	1.27,3	32,9	34,3	30,4	34,8	25,2	124.56.31,28																						94,76	96.19.56,53	T.
	Bessel xxiii. 808	3.17,8	21,2	25,9	18,5	22,3	14,0	116.33.21,00																						69,58	87.56.21,07	T.
	Bessel xxiii. 896.	2.59,3	63,0	67,0	60,0	63,7	56,5	126.3.2,53																						98,99	97.26.32,01	T.
	(k) Bessel xxiii. 897.	126.3.2,97																						98,99	97.26.32,45	T.
Nov. 6	Zenith Point....	0.13,0	19,0	17,8	15,3	18,1	12,2	9,927		66.25.17,51																					T.	
	z Aquarii.....	2.26,1	31,1	32,9	29,3	32,0	24,0			132.42.30,02	30,032																			50,4	49,0	132,77	104.6.33,28	T.
	θ Capricorni....	4.45,0	48,0	53,7	49,0	50,3	43,0			136.24.49,68		159,72	107.49.19,89	T.																		
	H. C. 41000.....	4.5,0	8,0	13,0	7,1	9,8	3,0			136.9.8,95		157,52	107.33.36,96	T.																		
	* Al. 21 ^h . 4 ^m . 31 ^s	2.38,4	43,8	45,9	41,6	45,0	37,9			136.22.42,93		159,42	107.47.12,84	T.																		
	Bessel xxi. 184..	1.23,8	29,0	29,7	27,1	30,1	23,1			129.21.27,58		114,32	100.45.12,39	T.																		
	Bessel xxi. 295..	2.47,0	51,8	54,5	50,1	52,9	44,0			131.32.50,93		125,86	102.56.47,28	T.																		
	B.A.C. 7473.....	3.30,5	35,0	39,0	33,1	36,4	28,2			138.28.34,82		30,047	50,0	49,0				179,26	109.53.24,57	T.												
	Bessel xxi. 638..	1.24,2	28,1	30,9	26,1	29,6	22,0			128.6.27,30					108,52	99.30.6,31	T.															
	(l) H. C. 42429.....	3.62,0	65,8	70,7	65,5	68,1	59,0			127.44.6,48					106,86	99.7.43,83	T.															
Nov. 7	(m) ⊙ S.L.....	3.21,0	25,0	29,0	22,1	26,2	17,8	+3	135.8.23,54	30,020					51,5	52,9	148,22	106.32.42,25	T.													
	Nov. 8	(n) ⊙ N.L.....	3.25,5	30,4	34,0	29,7	32,2		23,4	9,346		134.53.43,94	29,918	51,5	50,9	146,50	106.18.0,93	T.														
⊙ S.L.....		0.42,5	49,1	49,1	47,9	50,0	41,7	135.26.0,61	150,57			106.50.21,67				T.																
Bessel xxii. 343.		2.10,9	15,9	19,6	15,1	17,7	8,0	132.32.15,23	30,050			46,6				45,8	132,67	103.56.18,39	T.													
Neptune.....		2.25,2	29,0	32,9	28,6	31,1	23,9	129.17.29,23									114,83	100.41.14,55	T.													
Victoria.....		3.35,0	38,0	41,9	38,0	38,9	31,9	113.8.38,42									30,095	46,1	45,0	62,87	84.31.31,78	T.										

ONE REVOLUTION of the MICROMETER = 20",860. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) 'A brighter of less N.P.D. following.' (b) 'Precedes the next about 3s.' (c) 'Several of equal magnitude south-preceding, and one of Mag. 9.10 north-following.' (d) 'The star observed Nov. 2 was now very near the Planet.' (e) 'Bright, and the observation good.' (f) 'Negative correction for Runs.' (g) 'The Circle reading has been increased 5s.' (h) 'One of equal magnitude lower in the field,' viz. H. C. 5772. (i) 'Extremely faint: quite alone.' (j) 'Very faint: the observation not satisfactory.' (k) 'One of equal magnitude and greater N.P.D. following.' (m) 'The observation quite uncertain, the Sun being so much obscured by cloud.' (n) 'Cloudy.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refracti- on.	Apparent N.P.D. from the Observation.	Observer.	
		A	B	C	D	E	F						Int.	Ext.				
		"	"	"	"	"	"						"	"				"
Nov. 8	Bessel xxiii. 703.	1.26,2	31,0	33,1	30,0	33,3	24,1	+9,5			124.56.30,10	30,095	46,1	45,0	96,51	96.19.57,10	T.	
	Bessel xxiii. 776.	1.20,1	24,1	26,3	22,7	25,0	17,9				104.46.23,10			46,87	76.9.0,46	T.		
	Bessel xxiii. 869.	3.21,0	24,2	28,9	24,2	24,9	17,0				117.28.24,45			173,21	88.51.28,15	T.		
	* R. 23 ^h . 46 ^m . 55 ^s	1.5,4	9,0	11,0	8,9	8,9	2,0				104.51.7,88			47,00	76.13.45,37	T.		
	(a) Flora.....	0.36,4	42,1	44,1	40,2	43,6	35,5				129.50.40,43	30,099	46,0	44,6	118,06	101.14.28,98	T.	
	Bessel o. 64.....	1.7,1	12,0	13,6	11,1	11,2	4,3				122.31.10,27			88,07	93.54.28,83	T.		
	(b) Bessel o. 132.....	4.26,1	32,8	32,2	31,0	32,0	25,0				119.19.29,68			78,31	90.42.38,48	T.		
	(c) Bessel o. 221.....	0.43,1	48,9	50,2	47,0	48,6	41,5		+2		114.35.46,84			66,21	85.58.43,54	T.		
	45 Piscium.....	0.6,9	12,6	12,9	10,0	12,0	4,2				111.45.9,83			59,96	83.8.0,28	T.		
	Bessel o. 385.....	2.33,2	37,0	39,4	35,1	38,2	30,5				111.42.36,40			59,87	83.5.26,76	T.		
Nov. 11	Zenith Point....	0.18,6	24,7	24,2	21,4	23,8	19,0	+7,4	10,191		66.25.18,05						T.	
	η Capricorni....	1.28,9	36,9	37,0	33,0	38,0	29,1	+9,2			139.1.34,28	29,972	54,0	54,1	182,78	110.26.27,01	T.	
	(b) ν Aquarii.....	4.25,7	34,3	32,2	29,0	33,4	26,7				130.34.30,07			119,02	101.58.19,04	T.		
) S.L.....	0.25,3	33,8	32,1	29,5	34,3	27,9		-2		136.10.26,60	29,976	54,0	54,1	155,77	107.34.52,32	T.	
	) S.L.....	...	...	...	...	...	...		-1		136.10.27,03				107.34.52,75	T.
	) S.L.....	...	...	...	...	...	...				136.10.26,81				107.34.52,53	T.
	) S.L.....	...	...	...	...	...	...		+1		136.10.26,45				107.34.52,17	T.
	) S.L.....	...	...	...	...	...	...		+2		136.10.25,75				107.34.51,47	T.
	γ Capricorni....	0.31,7	38,9	37,1	34,9	39,3	32,0				135.55.35,83			153,75	107.19.59,53	T.		
	Neptune.....	2.37,0	43,2	44,8	40,8	44,0	35,4				129.17.41,68	29,969	53,4	53,5	112,74	100.41.24,37	T.	
	Nov. 12	(b)) S.L.....	4.57,1	64,0	63,9	60,0	65,5	56,5		-2		133.9.56,29	30,000	50,4	46,9	136,10	104.34.2,34	T.
) S.L.....		-1		133.9.56,63	10,102				104.34.2,68	T.
Nov. 14	(d) ☉ S.L.....	0.12,5	19,0	19,5	16,5	18,8	13,0		9,740		137.5.22,07	30,129	42,5	41,2	168,92	108.30.0,94	T.	
	☉ N.L.....	2.53,2	59,9	61,3	59,0	58,0	53,4		9,740		136.33.3,80			164,07	107.57.37,82	T.		
	(e) Bessel xx. 1009.	0.22,1	27,0	27,4	25,0	25,9	19,1			+4½	103.15.25,37	30,199	41,4	38,4	45,14	74.38.0,46	T.	
	z² Aquarii.....	2.24,5	28,9	32,7	28,2	29,1	23,9				132.42.28,65			136,48	104.6.35,08	T.		
	(f) * R. 21 ^h . 0 ^m . 17 ^s	3.10,0	13,0	18,1	13,1	13,8	9,1				136.28.13,83		42,0	37,4	165,05	107.52.48,83	T.	
	(f) * R. 21 ^h . 2 ^m . 32 ^s	2.54,9	56,9	62,9	56,0	58,1	53,2				136.2.57,88			161,41	107.27.29,24	T.		
	Bessel xxi. 184.	1.22,9	27,0	30,3	26,1	28,0	20,3				129.21.26,20			117,76	100.45.13,91	T.		
	H. C. 41544.....	2.42,1	44,8	49,4	44,0	44,3	39,5				131.17.44,85			128,19	102.41.42,99	T.		
	(g) Bessel xxi. 458.	1.15,3	20,1	23,0	17,3	20,4	13,9				132.56.18,73			138,26	104.20.26,94	T.		
	B.A.C. 7485.....	1.47,1	50,5	55,8	48,7	51,1	45,0				135.26.50,25			156,43	106.51.16,63	T.		
	(h) Bessel xxi. 695.	3.38,0	40,0	46,5	40,0	41,9	34,3				130.43.41,23			124,99	102.7.36,17	T.		
	45 Capricorni....	1.31,5	35,5	37,0	33,9	35,7	29,0				134.1.34,23	30,201	42,0	36,6	145,94	105.25.50,12	T.	
	H. C. 42467.....	4.17,9	19,3	27,0	20,6	21,3	14,3				129.9.21,38			116,96	100.33.8,29	T.		
	Bessel xxi. 1053.	2.63,2	65,4	70,0	64,0	65,6	59,0				128.43.5,48			114,82	100.6.50,25	T.		
	B.A.C. 7639.....	1.28,0	32,0	35,0	31,0	32,9	26,0				137.11.31,28			171,95	108.36.13,18	T.		
	Neptune.....	2.37,0	39,5	44,6	39,6	41,1	34,4				129.17.40,18	30,210	41,5	36,0	117,84	100.41.27,97	T.	
	φ Aquarii.....	2.33,6	38,0	41,8	37,8	38,0	31,2				125.27.37,53	30,219	40,9	35,0	100,99	96.51.8,47	T.	
	ψ³ Aquarii.....	1.44,1	48,5	50,9	47,1	47,9	41,4			10,065	129.1.45,84			116,80	100.25.32,59	T.		
	B.A.C. 8152.....	3.24,7	27,3	31,5	25,9	27,0	21,3				119.8.27,33			79,68	90.31.36,96	T.		
	Victoria.....	4.10,3	11,3	20,0	12,8	13,0	6,5				113.34.13,60	30,227	40,6	35,0	65,45	84.57.9,00	T.	
	Bessel xxiii. 776.	1.23,0	25,7	29,0	24,3	25,4	18,9				104.46.24,82			48,07	76.9.2,84	T.		
	) S.L.....	1.14,5	19,0	21,9	17,5	18,6	11,9			-2	125.26.11,62			100,92	96.49.42,49	T.	
	) S.L.....	...	...	...	...	...	...			-1	125.26.13,43	10,058			96.49.44,30	T.
	) S.L.....	...	...	...	...	...	...				125.26.11,48	10,295			96.49.42,35	T.
	) S.L.....	...	...	...	...	...	...			+1	125.26.10,05	10,505			96.49.40,92	T.
	) S.L.....	...	...	...	...	...	...			+2	125.26.10,61	10,618			96.49.41,48	T.
	(b) 27 Piscium.....	4.36,9	41,0	42,9	38,0	40,7	34,9				122.59.38,97				91,86	94.23.0,78	T.	
	(b) 33 Piscium.....	3.59,5	66,4	67,9	62,0	65,3	58,9				125.9.3,03				99,79	96.32.32,77	T.	
	Flora.....	1.29,1	33,5	37,0	31,0	34,7	27,0				129.11.32,55				117,64	100.35.20,11	T.	
Nov. 15	(i) ☉ N.L.....	3.17,7	22,9	26,0	21,1	21,8	16,0		9,337	+1½	136.48.35,37	30,196	41,9	39,0	167,51	108.13.12,83	T.	
	☉ S.L.....	0.34,5	41,0	42,4	39,4	41,1	34,3		9,337	+4½	137.20.50,93				172,52	108.45.33,40	T.	
Nov. 16	(b) 20 Ceti.....	4.4,1	12,2	10,9	7,5	10,9	4,0	+7,1			120.34.8,05	29,949	46,1	46,0	81,29	91.57.20,23	T.	

ONE REVOLUTION of the MICROMETER = 20",860. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) 'Good.' (b) Negative correction for Runs. (c) 'A brighter of greater N.P.D. preceded.' The observation was unsatisfactory. (d) Extremely tremulous. (e) Uncertain observation, too hurried. (f) Very faint. (g) 'Two of less N.P.D. preceded.' (h) The Circle reading has been increased 10%. (i) Both Limbs taken without the dark glass, but doubtfully on account of their faintness.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
Nov. 16	e Piscium R.....	3. 61,8	64,2	70,0	64,0	65,4	59,5	+7,1	7,170		199. 5. 4,15	29,949	46,1	46,0	63,80	85. 8. 24,76	T.
	e Piscium	4. 30,5	33,8	39,8	31,4	34,0	28,1		7,170		113. 45. 33,03					85. 8. 27,72	T.
	) S.L.....	4. 57,9	60,1	67,5	59,3	62,0	54,9			-2	116. 19. 55,11	29,957		44,7	70,03	87. 42. 56,03	T.
	) S.L.....	...	...	...	...	...	...		10,131	-1	116. 19. 55,55					87. 42. 56,47	T.
	) S.L.....	...	...	...	...	...	...		10,271		116. 19. 55,82					87. 42. 56,74	T.
	) S.L.....	...	...	...	...	...	...		10,469	+1	116. 19. 54,88					87. 42. 55,80	T.
	) S.L.....	...	...	...	...	...	...		10,639	+2	116. 19. 54,54					87. 42. 55,46	T.
	α Piscium	4. 29,9	32,3	37,1	31,0	32,5	27,5				116. 34. 32,78	29,967	45,3	44,4	70,71	87. 57. 34,38	T.
	(a) ξ ¹ Ceti R.....	1. 37,7	42,6	44,4	39,1	42,8	36,3		8,969	+2	202. 22. 2,30				57,12	81. 51. 19,93	T.
	ξ ¹ Ceti	3. 7,0	10,5	13,0	8,9	10,2	3,5		8,969	+4	110. 28. 31,45					81. 51. 19,46	T.
Nov. 19	(b) ☉ N.L.....	2. 10,4	18,7	18,4	14,9	17,2	10,9				137. 47. 15,63	28,949	52,4	53,6	164,47	109. 11. 50,99	T.
	Neptune.....	2. 34,2	40,1	41,4	36,8	40,7	32,2				129. 17. 38,18	28,795	48,9	48,2	109,51	100. 41. 18,58	T.
	(c)(d) Bessel o. 28. ...	4. 39,0	45,2	43,9	40,2	45,8	38,1				128. 24. 41,97	28,774	46,2	45,4	106,04	99. 48. 18,90	T.
Nov. 20	Zenith Point.....	0. 14,2	20,1	19,5	15,2	18,1	13,8	+7,0	9,989		66. 25. 17,11						T.
Nov. 21	☉ S.L.....	1. 47,1	53,2	54,7	51,4	53,3	46,1	+7,1	10,497		138. 46. 41,03	29,531	47,6	45,1	180,80	110. 11. 32,72	T.
	(c) ☉ N.L.....	4. 27,9	36,4	33,0	30,3	33,9	29,1		10,497		138. 14. 21,28				175,20	109. 39. 7,37	T.
	(c)(e) ζ Tauri	4. 56,9	61,7	63,1	57,0	61,0	54,4		10,397		97. 34. 50,74	29,655	38,9	34,7	36,08	68. 57. 17,71	T.
	(f) ν Orionis	0. 33,6	38,0	39,5	34,0	39,0	32,9				103. 50. 36,55	29,667	38,9	35,0	45,63	75. 13. 13,07	T.
	(g)) S.L.....	1. 30,9	33,9	38,9	29,8	34,0	26,8		10,030	-1	99. 1. 31,49				38,15	70. 24. 0,53	T.
	) S.L.....	...	...	...	...	...	...		10,043		99. 1. 31,85					70. 24. 0,89	T.
	) S.L.....	...	...	...	...	...	...		10,065	+1	99. 1. 32,12					70. 24. 1,16	T.
	) S.L.....	...	...	...	...	...	...		10,107	+2	99. 1. 32,09					70. 24. 1,13	T.
	μ Geminorum ...	2. 33,0	33,1	39,5	31,8	35,1	28,5				96. 2. 34,12				33,92	67. 24. 58,93	T.
	Nov. 23	Victoria	1. 53,4	57,9	59,9	56,0	57,3	51,0	+10,5			113. 56. 56,60	29,493	47,0	44,7	63,42	85. 19. 49,87
Bessel xxiii. 956		0. 59,0	63,5	65,3	60,2	62,8	56,0				115. 46. 1,48				67,59	87. 8. 58,92	B.
H. C. 47030.....		2. 38,2	42,2	45,6	39,3	43,0	34,7				121. 17. 41,43				32,45	92. 40. 53,73	B.
Bessel xxiii. 1143		3. 42,3	46,3	50,6	43,9	45,6	39,0				117. 18. 45,93				71,39	83. 41. 47,17	B.
Bessel xxiii. 1216		2. 15,0	20,0	22,6	17,3	20,6	12,3				123. 47. 18,77	29,492	47,0	45,6	90,36	95. 10. 38,98	B.
(h) Flora.....		2. 59,4	62,4	66,6	59,3	63,4	55,6				127. 58. 2,17				106,65	99. 21. 38,67	B.
(c) Bessel o. 635 ...		4. 48,0	54,4	53,4	48,8	52,7	47,3				111. 39. 50,70	29,490	46,8	45,7	58,44	83. 2. 38,99	B.
(c) Bessel o. 735 ...		4. 20,3	26,4	26,3	21,8	26,4	19,9				111. 59. 23,30				59,10	83. 22. 12,25	B.
(c) Bessel o. 832 ...		4. 7,2	14,4	13,6	8,5	14,1	6,6				119. 24. 10,45				76,78	90. 47. 17,08	B.
(c)(i) Egeria.....		4. 44,9	51,3	50,6	46,6	49,4	43,4				109. 49. 47,65	29,509	46,3	44,4	55,00	81. 12. 32,50	B.
Nov. 25	☉ S.L.....	1. 16,9	22,3	23,9	20,5	24,7	15,6		8,877		139. 36. 44,56	29,008	49,4	50,4	184,71	111. 1. 39,12	B.
	☉ N.L.....	3. 54,5	60,8	63,0	56,7	61,6	53,4		8,877		139. 4. 23,16				178,76	110. 29. 11,77	B.
	Neptune.....	1. 55,7	61,1	63,4	58,4	62,5	55,0				129. 17. 0,05	29,059	47,0	44,1	111,40	100. 40. 41,30	B.
	(l)(k) α Androm. R..	3. 8,4	11,4	15,1	8,8	13,0	6,0		7,748		222. 28. 58,53	29,080	45,6	43,4	25,51	61. 43. 53,13	B.
	α Andromedæ...	0. 45,5	48,8	51,6	45,1	50,2	42,6		7,748		90. 21. 34,55				25,51	61. 43. 49,91	B.
	Flora.....	3. 42,0	45,9	51,4	44,0	47,7	39,3		7,748		127. 39. 33,35				104,31	99. 3. 7,51	B.
	Bessel o. 266 ...	2. 33,2	35,9	40,3	33,4	37,9	29,8				123. 2. 36,00				87,01	94. 25. 52,86	B.
	(c) Bessel o. 402 ...	4. 42,1	47,4	48,4	44,1	47,3	39,8				115. 34. 44,77				66,39	86. 57. 41,01	B.
	(i) Bessel o. 492 ...	0. 62,5	66,8	68,6	62,8	68,3	59,0				120. 1. 5,03				77,79	91. 24. 12,67	B.
	B.A.C. 274.....	1. 27,4	31,3	33,9	28,4	32,5	23,6				112. 56. 30,05	29,089	45,4	43,0	60,60	84. 19. 20,50	B.
	Bessel o. 996 ...	2. 63,0	66,1	70,4	61,1	67,3	58,9				118. 48. 5,55				74,52	90. 11. 9,92	B.
	(c)(m) Bessel o. 1067..	4. 53,3	60,3	60,0	57,0	59,5	53,2				114. 14. 57,20				63,44	85. 37. 50,49	B.
	(c) Bessel i. 68 ...	4. 37,0	43,0	43,8	38,4	43,2	35,3				118. 19. 40,00				73,27	89. 42. 43,12	B.
	(c)(n) Bessel i. 694. ...	4. 55,0	59,9	61,8	55,5	60,4	54,0				112. 49. 57,77		41,4		60,58	84. 12. 48,20	B.
	* R. 1 ^h . 41 ^m . 6 ^s ..	0. 32,0	37,0	37,9	34,0	36,8	30,0				109. 40. 34,83				54,27	81. 3. 18,95	B.
	* R. 1 ^h . 41 ^m . 20 ^s..	...	...	...	...	...	...		9,387		109. 40. 47,62				54,27	81. 3. 31,74	B.
	Nov. 26	(o) ☉ N.L.....	1. 26,5	32,8	34,5	32,3	33,1	24,9		11,780		139. 15. 54,09	29,336	44,8	44,4	185,17	110. 40. 49,11	B.
☉ S.L.....		3. 47,5	51,3	56,9	50,3	53,5	44,6		11,780		139. 48. 14,89				191,40	111. 13. 16,14	B.
Neptune.....		1. 45,9	50,0	53,1	44,3	51,3	44,4				129. 16. 48,80	29,384	45,4	40,0	113,60	100. 40. 32,25	B.

ONE REVOLUTION of the MICROMETER = 20",860. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) The mercury waving and bisection quite uncertain. (b) The tangent-screw was inadvertently turned after the observation of S.L. (c) Negative correction for Run. (d) 'The only object seen.' The sky was too cloudy for farther observations. (e) Very bad definition. The setting of the micrometer-wire to 10",000 was inadvertently omitted. Perhaps the micrometer reading for the Sun was 10",397. (f) The circle reading has been diminished 1". (g) This limb was thought to be more illuminated than the other: neither appeared full. (h) 'Of Mag. 9.10.' (i) Very faint. (k) The mercury tremulous. (l) Misty cloud: the night generally unfavorable for observing. (m) 'The faintest of several.' (n) The Circle reading has been increased 4". (o) Faint from cloud.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Ruos for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.	Observer.					
		A	B	C	D	E	F						Int.	Ext.								
		"	"	"	"	"	"						"	r.				Inch.	o	o	"	o
Nov. 26	(a) α Andromedæ R.	3. 8,3	10,1	14,7	7,7	12,4	5,4	-10,5	6,608	+1½	235. 44. 21,63	29,384	45,4	39,4	11,05	48. 28. 15,57	B.					
	(b) α Andromedæ....	4. 58,1	62,4	65,3	59,7	64,0	56,1		6,608		77. 6. 11,99					48. 28. 12,89	B.					
	(c) δ Piscium	0. 44,7	49,1	51,7	44,8	49,4	41,8				111. 50. 47,18					59,37	83. 13. 36,40	B.				
Nov. 27	(d) Neptune.....	1. 33,5	36,6	40,7	33,7	38,4	31,7				129. 16. 36,32	29,778	42,5	38,7	115,41	100. 40. 21,58	B.					
	Bessel 111. 306...	1. 48,5	50,6	54,8	49,7	51,4	44,5				105. 31. 50,55					29,882	40,5	34,6	48,86	76. 54. 29,26	B.	
	f Tauri	1. 59,5	62,5	66,5	59,7	63,3	56,5				106. 12. 2,03							50,04	77. 34. 41,92	B.		
	(e) S.L.....	3. 27,0	30,7	26,6	29,4	30,7	23,5		9,805		-2					115. 33. 40,14	30,074	38,6	30,9	70,43	86. 56. 40,42	B.
	S.L.....		9,748		-1					115. 33. 37,89					86. 56. 38,17	B.
	S.L.....		9,550							115. 33. 38,59					86. 56. 38,87	B.
	S.L.....		9,405		+1					115. 33. 38,20					86. 56. 38,48	B.
	S.L.....		9,313		+2					115. 33. 36,72					86. 56. 37,00	B.
Nov. 28	(f) S.L.....	0. 20,9	25,9	27,2	22,9	27,5	20,4		10,938		140. 10. 4,70	30,166	38,7	37,4	204,33	111. 35. 18,88	B.					
	N.L.....	2. 52,1	57,6	60,5	54,0	57,9	49,5		10,938		139. 37. 36,71					197,55	111. 2. 44,11	B.				
	Zenith Point....	0. 24,4	27,8	30,7	25,5	29,3	24,9		10,436		66. 25. 18,15								B.			
	Neptune.....	1. 29,0	34,0	36,8	31,2	35,5	28,4		10,425		129. 16. 24,18					30,250	38,8	32,3	118,81	100. 40. 12,84	B.	
	Egeria.....	1. 58,5	62,0	68,4	59,4	62,6	56,4		10,424		109. 31. 53,08					30,286	36,2	29,8	57,59	80. 54. 40,52	B.	
Nov. 29	⊙ N.L.....	3. 35,6	37,8	45,2	37,4	40,9	33,5		11,922		139. 47. 59,59	30,274	38,1	38,3	200,01	111. 13. 9,45	B.					
	⊙ S.L.....	0. 58,6	65,0	66,6	60,9	65,4	58,3		11,922		140. 20. 22,73						206,92	111. 45. 39,50	B.			
	Neptune.....	1. 8,2	13,5	17,3	11,4	15,4	8,0				129. 16. 12,72					30,212	37,0	32,0	118,72	100. 40. 1,29	B.	
	(g) Victoria.....	1. 50,0	54,0	59,4	52,6	54,4	48,4				114. 1. 53,78					30,210	36,0	31,3	66,99	85. 24. 50,62	B.	
	Flora.....	0. 20,0	26,8	28,8	23,7	27,4	21,3				127. 0. 24,78							108,23	98. 24. 2,86	B.		
	(h) Egeria.....	2. 56,7	60,0	56,6	59,1	61,0	54,5				109. 27. 59,02					30,200	36,1	28,8	57,42	80. 50. 46,29	B.	
	Bessel 1. 896....	0. 14,0	19,0	20,9	16,5	19,0	13,9				103. 25. 17,32							46,35	74. 47. 53,52	B.		
	(b)(i) Bessel 1. 980....	4. 42,3	46,4	49,5	44,4	48,0	42,8				111. 39. 45,48							61,99	83. 2. 37,32	B.		
	Bessel 1. 1070....	2. 15,5	17,3	23,4	16,5	19,5	12,9				113. 7. 18,32							65,23	84. 30. 13,40	B.		
	Bessel 11. 31.....	1. 23,0	26,7	32,0	25,3	29,1	22,7				107. 26. 26,97							53,49	78. 49. 10,31	B.		
	Bessel 11. 154....	2. 39,4	41,2	48,4	41,5	42,5	36,7				109. 27. 42,57							57,41	80. 50. 29,83	B.		
	B.A.C. 728.....	2. 54,2	57,4	64,9	56,7	58,0	53,0				108. 27. 58,38							55,45	79. 50. 43,68	B.		
	Bessel 11. 319....	0. 14,9	18,8	22,6	17,4	20,5	15,4				106. 50. 18,37							52,36	78. 13. 0,58	B.		
	(b) H. C. 4660.....	4. 33,3	36,0	40,2	34,3	38,3	33,0				101. 44. 35,72							43,58	73. 7. 9,15	B.		
Dec. 2	(b) S.L.....	4. 32,2	39,9	40,1	36,6	41,6	34,0		11,831		140. 48. 59,07	30,219	40,8	44,6	210,19	112. 14. 19,11	B.					
	N.L.....	2. 9,8	16,3	19,2	13,7	17,9	10,6		11,831		140. 16. 37,15					203,01	111. 41. 50,01	B.				
Dec. 5	(k) Bessel 1. 356....	2. 41,3	46,7	48,8	45,6	45,7	40,3	+10,5			108. 57. 45,68	30,284	46,8	46,0	54,58	80. 20. 31,13	B.					
	Bessel 1. 633....	2. 37,3	43,5	45,1	40,5	42,4	36,4				109. 7. 41,82						54,89	80. 30. 27,58	B.			
Dec. 6	⊙ N.L.....	4. 7,7	11,7	15,9	13,2	11,3	8,3		11,063		140. 48. 50,64	30,360	44,8	46,4	210,34	112. 14. 11,85	B.					
	⊙ S.L.....	1. 32,4	38,3	38,6	37,1	39,3	36,0		11,063		141. 21. 15,34						218,04	112. 46. 44,25	B.			
	(b) Neptune.....	4. 31,6	40,2	37,9	35,7	40,0	33,0				129. 14. 36,28					30,339	45,6	44,4	116,02	100. 38. 23,17	B.	
	(g) Flora.....	0. 4,9	12,9	12,3	9,4	11,4	4,9		10,068		125. 35. 7,93					30,300	44,8	38,7	100,97	96. 58. 39,77	B.	
Dec. 9	(l) Zenith Point....	0. 5,4	10,1	11,2	7,8	9,5	6,7		9,592		66. 25. 17,01						B.					
	(l) Zenith Point....	0. 4,4	10,0	10,8	7,3	9,2	6,2		9,559		66. 25. 17,24								B.			
Dec. 12	27 Piscium.....	4. 37,6	40,4	46,4	40,6	41,8	35,6				122. 59. 42,05	29,892	41,7	41,5	89,63	94. 23. 2,55	B.					
	S.L.....	1. 37,8	43,8	45,4	40,5	43,4	37,8				123. 11. 35,93						90,30	94. 34. 57,10	B.			
	S.L.....		10,148	-1	123. 11. 35,92							94. 34. 57,09	B.			
	S.L.....		10,313		123. 11. 35,52							94. 34. 56,69	B.			
	S.L.....		10,472	+1	123. 11. 35,22							94. 34. 56,39	B.			
	S.L.....		10,632	+2	123. 11. 34,89							94. 34. 56,06	B.			
	(m) δ Piscium.....	4. 30,0	31,3	37,9	31,4	33,2	27,8		6,443	+4	111. 50. 48,01	29,900	42,0	40,0	60,33	83. 13. 39,21	B.					
	20 Ceti.....	2. 48,0	53,2	56,3	51,5	53,3	47,9		6,443		120. 34. 6,90					82,18	91. 57. 19,95	B.				
Dec. 13	(n) S.L.....	4. 36,3	38,5	45,4	37,7	39,8	34,7		14,155	+4	141. 28. 12,49	29,730	43,0	45,2	215,74	112. 53. 39,10	B.					
	S.L.....	1. 62,2	67,4	72,3	64,5	70,2	62,3		14,155	+4	142. 0. 39,32					223,94	113. 26. 14,13	B.				

ONE REVOLUTION of the MICROMETER = 20",860. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Very steady but faint. (b) Negative correction for Runs. (c) Faint from fog. (d) Faint from cloud. (e) Very tremulous.
 (f) Bad definition. (g) 'Good.' (h) Very faint, but the bisection satisfactory. (i) 'Another north-following.' (k) The instrument dripping with moisture.
 (l) Both taken at 21^h mean time. The adopted zenith point is 66°. 25'. 17",13. (m) The reflection observation is rejected, being quite discordant from unfavorable circumstances. (n) 'Much hurried: but the bisections appeared good.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"		r.		° ' "	Inch.	°	°	"	° ' "	
Dec. 13	(a)(b) S.L.....	0. 14,4	22,8	21,0	17,8	20,4	15,5	+10,5		-2	118. 40. 12,47	29,692	43,5	45,0	75,39	90. 3. 18,73	B.
	) S.L.....	...	...	...	...	...	...		10,242	-1	118. 40. 10,56					90. 3. 16,82	B.
	) S.L.....	...	...	...	...	...	...		10,371		118. 40. 11,01					90. 3. 17,27	B.
	) S.L.....	...	...	...	...	...	...		10,513	+1	118. 40. 11,19					90. 3. 17,45	B.
	) S.L.....	...	...	...	...	...	...		10,705	+2	118. 40. 10,32					90. 3. 16,58	B.
	(a) v Piscium.....	3. 24,7	30,0	33,6	27,2	29,8	23,8		10,705		113. 53. 14,69				63,67	85. 16. 9,23	B.
	(a) o Piscium.....	3. 5,4	10,9	13,2	7,5	9,6	2,5		10,705		110. 12. 54,56				56,02	81. 35. 41,45	B.
Dec. 14	(c) ☉ S.L.....	0. 14,8	22,0	22,9	19,7	22,9	17,6		12,365		142. 4. 30,77	29,616	44,5	47,4	223,06	113. 30. 4,70	B.
	☉ N.L.....	2. 47,8	53,2	54,9	51,5	53,6	47,4		12,365		141. 52. 3,07				214,85	112. 57. 28,79	B.
Dec. 16	☉ N.L.....	3. 7,5	13,0	17,1	11,2	13,9	7,7	+11,2	9,780		141. 38. 17,52	29,166	44,0	44,7	214,32	113. 3. 42,40	B.
	☉ S.L.....	0. 31,6	42,3	41,4	38,0	41,3	35,5		9,780		142. 10. 43,17				222,54	113. 36. 16,27	B.
Dec. 17	(d) Neptune.....	0. 47,0	56,6	58,5	53,3	57,7	51,8		9,881	+2	129. 10. 56,85	28,986	41,0	38,2	112,02	100. 34. 39,43	B.
	) S.L.....	3. 40,4	47,0	52,9	45,9	48,6	42,4		9,881		101. 58. 50,10	29,030	39,5	37,1	41,54	73. 21. 22,20	B.
	) S.L.....	...	...	...	...	...	...		9,944	+1	101. 58. 50,92					73. 21. 23,02	B.
	) S.L.....	...	...	...	...	...	...		10,016	+2	101. 58. 51,64					73. 21. 23,74	B.
Dec. 18	(e) ☉ S.L.....	0. 10,0	20,0	21,8	17,2	21,8	15,8		10,611		142. 15. 5,12	29,368	38,7	37,7	228,61	113. 40. 44,29	B.
	☉ N.L.....	2. 40,3	48,9	52,3	48,2	49,3	44,0		10,611		141. 42. 35,45				220,11	113. 8. 6,12	B.
Dec. 19	(f) Flora.....	2. 23,9	30,9	34,4	29,7	31,4	26,1		10,394	+4	123. 12. 22,51	29,670	38,4	35,0	90,90	94. 35. 43,97	B.
Dec. 20	☉ N.L.....	0. 23,5	34,2	35,8	29,8	35,6	30,5		11,584		141. 44. 58,71	30,079	37,3	36,3	226,71	113. 10. 35,98	B.
	☉ S.L.....	2. 50,6	59,5	64,0	57,8	59,8	54,5		11,584		142. 17. 25,78				235,48	113. 43. 11,82	B.
	(g) Zenith Point.....	4. 55,1	63,6	65,1	60,9	62,9	60,0		9,225		66. 25. 17,44						B.
	(h) Bessel xxiii. 1219	4. 20,5	26,6	32,1	25,8	27,3	21,1		8,323		114. 0. 2,20	30,186	32,2	36,4	66,16	85. 22. 58,92	C.
	(h) Bessel o. 83.....	0. 33,8	41,8	43,3	37,4	41,5	35,5		8,324		113. 16. 14,08				64,28	84. 39. 9,13	C.
	(h)(i) Flora.....	0. 7,5	14,7	15,6	11,6	14,0	9,7		9,902		123. 0. 14,29				91,50	94. 24. 36,35	C.
	) S.L.....	2. 49,8	56,1	62,1	51,9	59,4	49,8		9,902	-2	99. 13. 0,19	30,220	32,5	26,3	39,88	70. 35. 30,63	B.
	) S.L.....	...	...	...	...	...	...		9,898	-1	99. 12. 59,11					70. 35. 29,55	B.
	) S.L.....	...	...	...	...	...	...		9,861		99. 12. 58,83					70. 35. 29,27	B.
Dec. 23	(a)(k) ☉ S.L.....	2. 18,0	25,8	29,7	25,6	27,3	23,7	+7,6	9,711		142. 17. 31,65	30,539	37,7	38,3	238,08	113. 43. 21,57	B.
	(g) ☉ N.L.....	4. 52,4	61,6	63,9	62,1	62,4	59,6		9,711		141. 45. 6,36				229,23	113. 10. 47,43	B.
	κ Cassiopeiae R.....	3. 3,5	9,3	14,7	8,8	9,3	4,2		7,706	+1 3/4	256. 18. 56,06	30,500	33,0	33,8	10,73	27. 53. 17,37	B.
	κ Cassiopeiae.....	0. 35,1	42,4	42,9	38,8	43,9	38,9		7,706	+4	56. 31. 32,89					27. 53. 14,00	B.
	(l) Flora.....	1. 34,5	42,4	44,4	39,3	41,4	37,8		7,706	+4	122. 22. 28,65				90,79	93. 45. 51,28	B.
Dec. 26	(m) Zenith Point....	4. 34,0	43,7	42,6	39,4	42,0	40,8		8,280		66. 25. 16,22						B.
	(m) Zenith Point....	4. 54,6	64,0	63,9	60,1	62,3	60,7		9,274		66. 25. 16,09						B.
Dec. 27	(n) α Aquilæ R.....	0. 10,2	21,0	19,6	19,9	21,1	15,2		4,838	+1 1/2	202. 42. 5,55	30,110	43,8	48,2	56,29	81. 31. 14,90	B.
	α Aquilæ.....	1. 27,0	37,0	37,8	32,8	37,3	30,6		4,838	+4	110. 8. 22,16					81. 31. 10,29	B.

ONE REVOLUTION of the MICROMETER = 20'',860. ONE INTERVAL from the middle wire for an Equatorial Star = 16'',6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8'',00.

(a) Faint from cloud. (b) Very steady. (c) Extremely unsteady and badly defined. (d) 'Good bisection.' (e) Very tremulous.
 (f) 'Hurried; not good.' An object of the same R.A. lower in the field was noticed. (g) Negative correction for Runs. (h) These observations quite uncertain on account of mist from the breath of the observer on the eye-glass. (i) Placed by guess opposite the hole of the comb: the observation is probably worthless. (k) The barometer reading, being unusually large, was verified by the observer. (l) 'Unsatisfactory bisection.' (m) Negative correction for Runs. The adopted zenith point is 66°. 25'. 16'',16. (n) Faint. The direct observation is discordant.

MEAN NORTH POLAR DISTANCES OF THE STARS

OBSERVED IN THE YEAR 1850,

AS DEDUCED FROM EACH DAY'S OBSERVATION;

AND THE

CONCLUDED MEAN NORTH POLAR DISTANCES,

JANUARY 1, 1850;

WITH THE ANNUAL VARIATIONS.

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1850 as observed.	Approximate R.A. Jan. 1, 1850.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1850.	Annual Variation.	Notes.
				"	"	h. m. s.		" " "	"	
1	Bessel xxiii. 1242 .	Oct. 29		+ 14,63	49,59	0. 0. 8	1	101. 57. 50,35	- 20,055	
2	α Andromedæ	Nov. 25		+ 23,81	13,72	0. 0. 39	1	61. 44. 14,90	20,055	
3	α Andromedæ R.	25		+ 23,81	16,94		1	16,50		
4	Bessel o. 28.	19		+ 13,17	32,07	0. 2. 22	1	99. 48. 32,68	20,054	
5	Bessel o. 64.	8	8.9	+ 15,74	44,57	0. 3. 54	1	93. 54. 45,05	20,052	No. 4. There is no star in the place of Bessel o. 29. See the note to the observation.
6	Bessel o. 83.	Dec. 20		+ 15,43	24,56	0. 5. 6	1	84. 39. 25,11	20,050	
7	Bessel o. 132	Nov. 8	9.10	+ 16,45	54,93	0. 8. 3	1	90. 42. 55,40	20,042	
8	H. C. 245.	Oct. 26	8	+ 16,69	12,74	0. 9. 25	1	92. 29. 13,21	20,038	
9	Bessel o. 174	30	9	+ 16,91	34,38	0. 10. 10	1	90. 27. 34,85	20,035	No. 8. The R.A. of Bessel o. 161, which is the same star, is 10 ^s too great.
10	Bessel o. 221	Nov. 8	9½	+ 17,46	1,00	0. 12. 47	1	85. 59. 1,53	20,024	
11	Bessel o. 266	Oct. 12	8.9	+ 16,84	6,65					
12	—	26	8.9	+ 16,18	5,23					
13	—	30	8.9	+ 15,94	5,91	0. 15. 26	5	94. 26. 6,54	20,010	
14	—	Nov. 2	9.10	+ 15,75	5,65					
15	—	25	8	+ 14,00	6,86					
16	Bessel o. 301	Oct. 7	9.10	+ 17,64	54,09	0. 17. 53	1	83. 5. 54,67	19,994	
17	45 Piscium	5	8	+ 17,54	17,15					
18	—	7	8	+ 17,63	17,12	0. 17. 58	3	83. 8. 18,08	19,993	
19	—	Nov. 8	8	+ 17,94	18,22					
20	10 Ceti	Oct. 12	7.8	+ 17,12	50,50					
21	—	26	7.8	+ 16,73	49,03	0. 18. 56	3	90. 52. 50,18	19,987	
22	—	30	7.8	+ 16,56	49,60					
23	Bessel o. 355	Nov. 2	9½	+ 16,90	40,68	0. 21. 29	1	88. 8. 41,18	19,967	
24	Bessel o. 385	Oct. 5	9.10	+ 17,35	44,62					
25	—	12	9.10	+ 17,62	46,95	0. 23. 16	3	83. 5. 45,94	19,952	
26	—	Nov. 8	9	+ 17,76	44,52					
27	Bessel o. 402	Oct. 30	9½	+ 17,14	57,88	0. 24. 15	2	86. 57. 57,97	19,943	
28	—	Nov. 25	8½	+ 16,02	57,03					
29	κ Cassiopeiæ	Dec. 23		+ 31,19	45,19	0. 24. 31	1	27. 53. 45,61	19,940	
30	κ Cassiopeiæ R.	23		+ 31,19	48,56		1	48,88		
31	Bessel o. 418	Oct. 7	8.9	+ 17,39	31,91	0. 24. 52	1	82. 32. 32,50	19,937	No. 31 and 32. The former is decidedly the brighter. According to Bessel both are of Mag. 9.
32	Bessel o. 426	7	9½	+ 17,37	52,95	0. 25. 10	1	82. 32. 53,54	19,934	
33	Bessel o. 477	5	8.9	+ 17,10	55,81	0. 27. 46	1	86. 31. 56,33	19,908	No. 33. There is no star in the place of H. C. 867, which appears to be the same as H. C. 876, with an error of 13 ^s in defect in R.A.
34	Bessel o. 492	30	9.10	+ 16,10	25,23	0. 28. 44	2	91. 24. 26,70	19,897	
35	—	Nov. 25	9.10	+ 14,55	27,22					
36	δ Andromedæ	Oct. 8		+ 17,26	34,66	0. 31. 19	1	59. 57. 35,89	19,868	No. 37. This N.P.D. appears to be quite discordant. See the note to the observation.
37	δ Andromedæ R.	8		+ 17,26	(41,64)					
38	Bessel o. 544	5	8	+ 16,91	23,85	0. 32. 4	1	87. 10. 24,36	19,859	
39	Bessel o. 635	Nov. 23	9	+ 16,77	55,76	0. 36. 34	1	83. 2. 56,34	19,800	
40	Bessel o. 678	Oct. 12		+ 16,70	46,97	0. 39. 4	1	88. 27. 47,46	19,764	
41	δ Piscium	Nov. 26	7	+ 16,43	52,83	0. 40. 54	2	83. 13. 54,38	19,736	
42	—	Dec. 12		+ 15,56	54,77					
43	Bessel o. 735	Nov. 23	8½	+ 16,46	28,71	0. 42. 22	1	83. 22. 29,28	19,713	
44	20 Ceti	16		+ 14,50	34,73	0. 45. 21	2	91. 57. 34,05	19,663	
45	—	Dec. 12		+ 12,48	32,43					
46	Bessel o. 797	Oct. 12	8.9	+ 16,80	6,75	0. 45. 26	1	80. 54. 7,37	19,662	
47	Bessel o. 832	Nov. 23	8½	+ 14,22	31,30	0. 47. 52	1	90. 47. 31,77	19,619	
48	B.A.C. 270	Oct. 12	7.8	+ 16,48	0,41	0. 50. 32	1	83. 58. 0,97	19,570	
49	B.A.C. 274	Nov. 25	6	+ 15,69	36,19	0. 52. 3	1	84. 19. 36,74	19,540	
50	B.A.C. 286	Oct. 12	7¾	+ 16,34	8,62	0. 54. 42	1	81. 59. 9,22	19,486	
51	Bessel o. 996	Nov. 25	8	+ 13,91	23,83	0. 56. 36	1	90. 11. 24,30	19,446	
52	Bessel o. 1013	Oct. 11	8	+ 16,16	18,67	0. 57. 36	1	82. 28. 19,26	19,425	
53	Bessel o. 1048	12	9.10	+ 16,02	29,72	0. 59. 9	1	86. 59. 30,23	19,391	
54	Bessel o. 1067	Nov. 25	9.10	+ 14,99	5,48	1. 0. 13	1	85. 38. 6,01	19,366	
55	ε Piscium	Sept. 21		+ 15,14	41,33					
56	—	Nov. 16		+ 15,50	43,22	1. 0. 39	2	85. 8. 42,81	19,357	
57	ε Piscium R.	16		+ 15,50	40,26		1	85. 8. 40,46		
58	Bessel I. 22	Oct. 11	9	+ 15,94	9,75	1. 2. 44	1	79. 39. 10,40	19,308	
59	Bessel I. 46	29	9.10	+ 16,24	11,61	1. 3. 53	1	82. 13. 12,21	19,281	
60	Polaris	Apr. 9		- 3,28	24,82					
61	—	June 2		- 15,88	25,10	1. 5. 1	3	1. 29. 25,00	- 19,253	
62	—	4		- 16,08	24,27					
63	Polaris R.	Apr. 9		- 3,28	23,14					
64	—	June 2		- 15,88	24,40		3	1. 29. 24,29		
65	—	4		- 16,08	23,91					
66	Polaris SP	Apr. 2		- 0,93	24,60					
67	—	May 2		- 9,73	25,07					
68	—	18		- 13,38	25,72					
69	—	20		- 13,78	24,92		6	1. 29. 25,89		

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1850 as observed.	Approximate R.A. Jan. 1, 1850.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1850.	Annual Variation.	Notes.
				"	"	h. m. s.		° ' "	"	
70	Polaris SP.....	May 28		- 15.13	26.68					
71	-----	Oct. 15		+ 11.12	26.39					
72	Polaris SP. R.....	Apr. 2		- 0.93	25.73					
73	-----	May 2		- 9.73	24.65					
74	-----	18		- 13.38	24.05		5	1.29.25.79		
75	-----	20		- 13.78	24.69					
76	-----	28		- 15.13	27.76					
77	Bessel 1. 68.....	Nov. 25	8	+ 13.69	56.81	1. 5. 20	1	89.42.57.28	-19.246	
78	Bessel 1. 110.....	Oct. 11	8.9	+ 15.69	36.65	1. 7. 47	1	82. 1. 37.25	19,184	
79	Bessel 1. 157.....	29	9½	+ 15.42	47.72	1. 10. 43	1	86.36.48.24	19,108	
80	Bessel 1. 255.....	29	9	+ 15.43	4.73	1. 15. 58	1	84.17. 5.28	18,963	
81	Bessel 1. 269.....	29	8	+ 15.40	58.78	1. 16. 35	1	84.17.59.33	18,945	
82	Bessel 1. 356.....	Dec. 5	8	+ 14.93	46.06	1. 21. 11	1	80.20.46.69	18,810	
83	Bessel 1. 410.....	Oct. 29	8.9	+ 15.35	5.84	1. 24. 0	1	80.47. 6.46	18,723	
84	51 Andromedæ....	Sept. 25		+ 7.43	59.68	1. 28. 49	1	42. 8. 0.97	18,567	
85	51 Andromedæ R..	25		+ 7.43	62.05		1	1.50		
86	ν Piscium.....	Dec. 13		+ 12.42	21.65	1. 33. 38	1	85.16.22.19	18,404	
87	Bessel 1. 633.....	5		+ 14.15	41.73	1. 34. 41	1	80.30.42.36	18,368	
88	τ Ceti.....	Oct. 29		+ 12.30	43.35	1. 37. 6	1	106.43.44.41	18,282	
89	τ Ceti R.....	29		+ 12.30	44.52		1	44.20		
90	ο Piscium.....	Dec. 13		+ 13.31	54.76	1. 37. 29	1	81.35.55.37	18,268	
91	Bessel 1. 694.....	Nov. 25	8½	+ 13.50	1.70	1. 38. 23	1	84.13. 2.26	18,235	
92	* (Mag. 10).....	25		+ 13.99	32.94	1. 41. 6	1	81. 3. 33.56	18,135	
93	* (Mag. 9).....	25		+ 13.99	45.73	1. 41. 20	1	81. 3. 46.35	18,126	
94	Bessel 1. 896.....	29	7¼	+ 14.69	8.21	1. 50. 31	1	74.48. 9.00	17,768	
95	α Piscium.....	16		+ 12.43	46.81	1. 54. 18	1	87.57.47.31	17,612	
96	Bessel 1. 980.....	29	9½	+ 12.64	49.96	1. 54. 44	1	83. 2. 50.54	17,594	
97	α Arietis.....	Oct. 30		+ 13.60	54.63	1. 58. 44	1	67.14.55.65	17,423	
98	α Arietis R.....	30		+ 13.60	57.64		1	57.36		
99	Bessel 1. 1070.....	Nov. 29	8¾	+ 12.06	25.46	1. 59. 34	1	84.30.26.01	17,387	
100	Bessel 11. 31.....	29	9	+ 13.01	23.32	2. 3. 27	1	78.49.23.99	17,215	
101	ξ¹ Ceti.....	16		+ 12.74	32.20	2. 5. 3	1	81.51.32.80	17,143	
102	ξ¹ Ceti R.....	16		+ 12.74	32.67		1	32.81		
103	Bessel 11. 154.....	29	8	+ 12.15	41.98	2. 10. 31	1	80.50.42.60	16,890	
104	B.A.C. 728.....	29	7	+ 12.05	55.73	2. 15. 12	1	79.50.56.38	16,666	No. 104. The same as Bessel 11. 240 and H. C. 4407. The R.A. of B.A.C. is 1 ^m too small.
105	Bessel 11. 319.....	29	8	+ 12.06	12.64	2. 19. 44	1	78.13.13.33	16,441	
106	ξ² Ceti.....	Oct. 21		+ 12.10	54.80	2. 20. 11	1	82.12.55.40	16,419	
107	H. C. 4660.....	Nov. 29	8½	+ 12.70	21.85	2. 23. 14	1	73. 7. 22.69	16,264	
108	ν Ceti.....	Oct. 21		+ 11.79	50.96	2. 28. 0	1	85. 3. 51.50	16,017	
109	Bessel 11. 746.....	Nov. 4	10	+ 10.66	43.89	2. 43. 17	1	77. 7. 44.61	15,176	No. 109. The correction of the circle reading mentioned in the note to the observation, was verified by an Equatorial observation March 16, 1856.
110	Bessel 11. 789.....	2	8	+ 10.47	47.43	2. 45. 42	1	76.23.48.17	15,038	
111	ρ³ Arietis.....	4	6.7	+ 10.29	43.12	2. 47. 59	1	72.34.43.98	14,905	
112	H. C. 5456.....	2	8	+ 10.09	31.59	2. 49. 29	1	72.47.32.44	14,817	
113	Bessel 11. 747.....	4	10	+ 9.95	30.82	2. 53. 40	1	77.53.31.53	14,567	
114	Bessel 11. 976.....	2	8.9	+ 9.76	12.03	2. 55. 17	1	76. 7. 12.78	14,470	
115	H. C. 5771.....	4	8	+ 9.43	19.52	2. 59. 41	1	73.39.20.34	14,201	No. 115. The N.P.D. of H. C. is 1' too great.
116	Bessel 111. 12.....	2	10	+ 9.38	3.20	3. 2. 1	1	78.31. 3.88	14,056	
117	Bessel 111. 43.....	4	9	+ 9.31	25.69	3. 3. 34	1	79.25.26.35	13,959	No. 118. The N.P.D. of H. C. is 14" less, secular variation being taken into account.
118	H. C. 5967.....	2	8	+ 8.82	2.85	3. 5. 36	1	72.15. 3.72	13,830	
119	H. C. 5970.....	2	8.9	+ 8.80	15.78	3. 5. 46	1	72.13.16.65	13,820	
120	H. C. 6032.....	4	8	+ 8.47	37.74	3. 8. 13	1	67.25.38.75	13,663	
121	H. C. 6247.....	2	9	+ 8.16	56.76	3. 15. 25	1	73.48.57.58	13,196	
122	ο Tauri.....	Oct. 21		+ 8.64	9.00	3. 16. 45	1	81.30. 9.61	13,108	
123	Bessel 111. 306....	Nov. 27	9	+ 8.07	37.33	3. 17. 24	1	76.54.38.06	13,064	
124	ξ Tauri.....	Jan. 5		- 7.94	38.43					
125	-----	Feb. 18		- 10.10	37.95	3. 19. 3	3	80.47.38.35	12,955	
126	-----	19		- 10.15	36.80					
127	ξ Tauri R.....	Jan. 5		- 7.94	37.24		1	37.36		
128	H. C. 6378.....	Nov. 2	8.9	+ 7.81	25.10	3. 19. 41	1	73.21.25.93	12,912	
129	f Tauri.....	27		+ 7.60	49.52	3. 22. 36	1	77.34.50.23	12,716	
130	H. C. 6525.....	2	8.9	+ 7.47	34.39	3. 24. 31	1	73.54.35.21	12,586	
131	40 Persei.....	Feb. 7		- 1.34	13.69	3. 32. 53	1	56.31.15.00	12,007	
132	* (Mag. 10).....	7		- 0.99	28.06	3. 36. 28	1	55.15.29.39	11,755	
133	η Tauri.....	Jan. 5		- 4.47	45.53	3. 38. 35	1	66.21.46.57	11,604	
134	η Tauri R.....	5		- 4.47	45.84		1	45.54		
135	ε Tauri.....	Feb. 18		- 8.66	20.72	3. 40. 3	1	79.19.21.38	11,499	
136	ζ Persei.....	Jan. 5		- 2.67	58.43	3. 44. 43	1	58.33.59.69	11,162	
137	ζ Persei R.....	5		- 2.67	58.12		1	57.60		
138	* (Mag. 7.8).....	Feb. 18		- 1.19	16.98	3. 47. 0	1	54.26.18.33	-10,996	No. 138. R.A. and magnitude determined by a transit observation Dec. 12, 1855.

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1850 as observed.	Approximate R.A. Jan. 1, 1850.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1850.	Annual Variation.	Notes.
				"	"	h. m. s.		" ' "	"	
139	ξ Persei.....	Feb. 18		- 1.29	40.24	3.49.15	1	54.38.41.59	-10,831	
140	B.A.C. 1272.....	18		- 7.92	55.89	3.59.24	1	73. 3. 56.73	10,073	
141	ω ² Tauri.....	6		- 6.57	40.01	4. 8.29	1	69.47.40.96	9,378	
142	ε Tauri.....	20		- 7.54	23.24	4.19.52	1	71. 9.24.14	8,486	
143	H. C. 8431.....	8		- 17.17	46.95	4.20.43	1	101.27.47.68	8,419	
144	Aldebaran.....	20		- 8.56	49.52	4.27.19	1	73.47.50.34	7,891	
145	H. C. 8705.....	18		- 7.06	15.82	4.29.25	1	69.37.16.77	7,722	
146	τ Tauri.....	Jan. 30	6.7	- 6.15	6.98	4.33.15	1	67.20. 8.00	7,411	
147	H. C. 9013.....	30	8	- 8.23	56.88	4.40. 4	1	73.37.57.70	6,854	
148	H. C. 9058.....	Feb. 8		+ 0.30	42.13					
149	—	9		+ 0.34	40.91	4.42.33	2	46.26.42.89	6,649	
150	H. C. 9168.....	Jan. 30	8	- 8.52	59.21	4.45.20	1	74.19. 0.01	6,419	
151	B.A.C. 1542.....	Feb. 9		- 9.31	49.65	4.52. 4	1	75.50.50.41	5,858	
152	ι Tauri.....	8		- 6.98	43.65					
153	—	12		- 7.00	41.22	4.54. 8	2	68.37.43.42	5,685	
154	Bessel iv. 1312....	6		- 9.40	1.87					
155	—	9		- 9.47	2.45	4.58.15	2	76. 7. 2.91	5,338	
156	* (Mag. 8.9).....	8		+ 0.41	1.98	4.58.52	1	44.27. 3.33	5,286	
157	H. C. 9656.....	6		+ 0.20	7.97					
158	—	9		+ 0.41	7.08	5. 0.53	2	44.32. 8.87	5,116	
159	Bessel v. 11.....	22		- 9.79	56.67	5. 1.45	1	76.11.57.42	5,042	
160	108 Tauri.....	9		- 6.94	29.74					
161	—	12		- 6.94	30.76	5. 6.27	3	67.53.31.14	4,643	
162	—	22		- 6.95	29.92					
163	Bessel v. 219.....	9		- 11.12	52.67					
164	—	12		- 11.21	53.23	5. 9.59	2	80.56.53.57	4,342	
165	B.A.C. 1656.....	9		- 11.36	27.54	5.13.33	1	81.43.28.15	4,037	No. 165. The R.A., which is only given approximately in B.A.C., was determined by a transit observation Dec. 12, 1855. The magnitude at the same time was estimated to be the 7th.
166	β Tauri.....	12		- 5.12	26.87					
167	—	20		- 4.96	26.23	5.16.49	3	61.31.27.98	3,756	
168	—	22		- 4.94	27.29					
169	β Tauri R.....	12		- 5.12	27.05					
170	—	22		- 4.94	28.85		2	27.51		
171	*.....	9	9	- 6.89	35.83	5.21.59	1	66.54.36.86	3,312	
172	120 Tauri.....	9		- 8.36	16.36	5.24.44	1	71.34.17.25	3,074	
173	*.....	Mar. 6	10	- 12.56	58.28	5.28.25	1	83.15.58.86	2,755	No. 173. Observed with the Transit in 1845. See the Catalogue of Mean R.A. for that year.
174	ζ Tauri.....	Nov. 21		- 3.04	14.67	5.28.41	1	68.57.15.64	2,732	
175	H. C. 10661.....	Feb. 22	9	- 6.52	7.09	5.31.54	1	65.44. 8.15	2,453	
176	ζ Orionis.....	Jan. 23		- 12.97	34.85	5.33.12	1	92. 1.35.32	2,340	
177	B.A.C. 1801.....	Feb. 6		- 7.13	18.15					
178	—	9		- 7.08	17.99	5.34.13	2	66.52.19.10	2,251	
179	H. C. 10816.....	22		- 11.98	50.04	5.35.33	1	82. 5.50.64	2,135	
180	H. C. 10844.....	9		- 6.97	6.59	5.36.50	1	66.19. 7.63	2,024	
181	Bessel v. 1015.....	6		- 11.50	51.40	5.39.46	1	82. 5.52.00	1,768	
182	H. C. 11048.....	6		- 7.07	13.00					
183	—	12		- 6.92	13.71	5.42. 7	2	66. 7.14.40	1,563	
184	χ ¹ Orionis.....	Mar. 12	5	- 7.94	24.04	5.45.30	1	69.45.24.99	1,268	
185	H. C. 11244.....	7	8	- 6.94	52.94	5.49.18	1	66.51.53.97	0,936	
186	Bessel v. 1284.....	12	7.8	- 12.27	37.51	5.50.19	1	82. 9.38.11	0,847	
187	χ ³ Orionis.....	12		- 8.15	42.15	5.54.35	1	70.18.43.08	0,474	
188	χ ⁴ Orionis.....	7	6.7	- 8.02	45.56	5.55. 1	1	69.51.46.50	0,436	
189	H. C. 11518.....	9	8 ¹ / ₄	- 9.27	55.72	5.56.53	1	73.26.56.55	0,273	
190	ν Orionis.....	Nov. 21		- 4.43	8.64	5.59. 1	1	75.13. 9.41	0,086	
191	H. C. 11617.....	Mar. 7	8.9	- 6.17	13.26	5.59.45	1	64.28.14.36	-0,021	
192	5 Geminorum.....	Feb. 13		- 7.06	7.49	6. 2.20	1	65.33. 8.55	+0,204	
193	68 Orionis.....	Mar. 9		- 8.14	51.13					
194	—	12		- 8.12	51.83	6. 3. 8	2	70.10.52.42	0,274	
195	f ¹ Orionis.....	7	6.7	- 9.43	24.88	6. 3.24	1	73.50.25.70	0,297	
196	f ² Orionis.....	12	6.7	- 9.40	55.71	6. 6.46	1	73.48.56.53	0,592	
197	H. C. 11897.....	9	9	- 7.50	23.01	6. 7. 7	1	68.15.24.00	0,623	
198	H. C. 11930.....	7	8	- 7.38	30.72	6. 8.18	1	67.48.31.72	0,726	
199	H. C. 12013.....	9	8	- 5.55	29.46					
200	—	12	8.9	- 5.48	29.88	6.10.40	2	62.33.30.82	0,933	
201	B.A.C. 2039.....	7	8	- 7.73	15.23	6.12.24	1	68.44.16.21	1,085	
202	B.A.C. 2042.....	Feb. 7		- 7.56	28.58	6.12.40	1	66.10.29.63	1,108	
203	μ Geminorum.....	21		- 7.57	51.86					
204	—	22		- 7.54	50.93					
205	—	Apr. 17		- 6.96	52.15	6.13.53	4	67.24.52.72	1,214	
206	—	Nov. 21		- 7.02	51.91					
207	H. C. 12181.....	Mar. 9	8.9	- 8.84	37.30	6.15. 3	1	72. 2.38.18	+1,316	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1850 as observed.	Approximate R.A. Jan. 1, 1850.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1850.	Annual Variation.	Notes.
				"	"	h. m. s.		"	"	
208	H. C. 12227.....	Mar. 7	7.8	- 9.48	58.37	6. 16. 15	1	73. 51. 59.19	+ 1,421	
209	16 Geminorum.....	Feb. 8		- 8.45	6.00	6. 19. 1	1	69. 25. 6.96	1,662	
210	H. C. 12339.....	Mar. 7	7.8	- 5.80	25.30	6. 19. 33	1	62. 56. 26.44	1,709	
211	H. C. 12358.....	Feb. 7		- 8.56	14.67	6. 19. 59	1	69. 40. 15.62	1,747	
212	γ Geminorum.....	7		- 8.57	52.03	6. 20. 3	1	69. 41. 52.98	1,752	
213	H. C. 12518.....	Mar. 6	8	- 8.25	1.85	6. 24. 24	1	70. 3. 2.79	2,131	
214	H. C. 12536.....	7	9	- 7.38	3.17	6. 24. 55	1	67. 33. 4.18	2,176	
215	H. C. 12537.....	9	8	- 7.41	21.85	6. 25. 2	1	67. 46. 22.85	2,186	
216	H. C. 12539.....	9	7.8	- 7.41	57.33	6. 25. 6	1	67. 45. 58.33	2,192	
217	Bessel vr. 809.....	Feb. 7		- 16.32	15.19	6. 26. 30	1	104. 42. 16.15	2,314	
218	H. C. 12655.....	Mar. 7	9.10	- 7.46	50.68	6. 28. 27	2	67. 43. 51.08	2,483	
219	—	12	8.9	- 7.36	49.48					
220	51 (Hev.) Cephei ..	Aug. 16		- 20.29	38.46	6. 28. 34	1	2. 44. 38.71	2,493	
221	51 (Hev.) Cephei R.	16		- 20.29	39.61		1	40.10		
222	γ Geminorum	Feb. 22		- 9.52	39.50	6. 29. 3	1	73. 28. 40.33	2,535	
223	H. C. 12687.....	Mar. 6	8	- 5.61	10.46	6. 29. 28	1	62. 4. 11.63	2,571	
224	B.A.C. 2173.....	9	8	- 8.27	32.97	6. 31. 10	1	70. 12. 33.91	2,719	
225	H. C. 12821.....	Feb. 7		- 12.72	31.96					
226	—	8		- 12.80	31.35	6. 32. 35	2	87. 18. 32.16	2,842	
227	H. C. 12816.....	Mar. 7	8.9	- 6.38	37.09	6. 32. 56	1	64. 23. 38.19	2,872	
228	H. C. 12839.....	6	9	- 8.63	31.31	6. 33. 26	1	71. 4. 32.22	2,915	
229	H. C. 12914.....	9	7.8	- 7.93	39.42	6. 35. 34	1	69. 9. 40.39	3,100	
230	H. C. 12962.....	6	7.8	- 7.14	45.62					
231	—	7	8	- 7.10	43.56	6. 37. 4	2	66. 28. 45.63	3,229	
232	Sirius.....	Feb. 13		- 17.14	48.85					
233	—	Apr. 24		- 18.68	47.82	6. 38. 32	3	106. 30. 49.26	3,356	
234	—	May 2		- 17.92	47.96					
235	Sirius R.	Feb. 13		- 17.14	53.16					
236	—	Apr. 24		- 18.68	48.08		3	49.46		
237	—	May 2		- 17.92	48.07					
238	11 Canis Majoris...	Feb. 8		- 16.01	7.69	6. 40. 1	1	104. 16. 8.62	3,484	
239	H. C. 13065.....	Mar. 6	8	- 8.06	26.36	6. 40. 2	2	69. 16. 27.32	3,485	
240	—	7	8.9	- 8.04	26.37					
241	H. C. 13313.....	Feb. 8		- 7.99	24.05	6. 46. 29	2	65. 48. 25.04	4,040	
242	—	13		- 7.78	23.92					
243	H. C. 13423.....	Mar. 11	8	- 6.50	57.76	6. 49. 17	1	64. 52. 58.84	4,279	
244	B.A.C. 2283.....	Feb. 8		- 8.18	22.45	6. 51. 35	1	66. 21. 23.49	4,476	
245	α Geminorum.....	13		- 7.83	32.02	6. 53. 16	1	65. 34. 33.08	4,619	
246	ζ Geminorum.....	Jan. 26		- 9.08	51.71					
247	—	Mar. 4		- 8.17	49.53	6. 55. 13	2	69. 12. 51.58	4,785	
248	* (Mag. 10).....	Feb. 20		- 7.69	5.82	6. 56. 5	1	66. 3. 6.87	4,859	
249	H. C. 13675.....	Mar. 11	7.8	- 6.56	1.62	6. 57. 0	1	64. 55. 2.70	4,937	
250	* (Mag. 8.9).....	Feb. 13		- 7.97	20.69	6. 58. 8	1	65. 52. 21.74	5,033	
251	B.A.C. 2326.....	Mar. 6		+ 8.63	2.73	6. 59. 12	1	7. 19. 2.91	5,123	
252	B.A.C. 2326 R.....	6		+ 8.63	2.65		1	3.21		
253	H. C. 13804.....	Feb. 20		- 7.75	35.56	7. 0. 12	1	66. 7. 36.61	5,208	
254	H. C. 13845.....	Mar. 11	8.9	- 8.75	17.41	7. 1. 7	1	71. 32. 18.30	5,285	
255	48 Geminorum.....	4		- 7.12	30.36	7. 3. 19	1	65. 37. 31.42	5,470	
256	H. C. 13937.....	13	8	- 7.66	0.78	7. 3. 51	1	68. 24. 1.76	5,515	
257	H. C. 13972.....	11	9	- 6.53	7.45	7. 4. 49	1	64. 44. 8.54	5,597	
258	H. C. 14108.....	11	8.9	- 7.94	33.44	7. 8. 26	1	68. 59. 34.41	5,900	
259	λ Geminorum.....	13	5.6	- 9.24	35.02	7. 9. 28	1	73. 11. 35.86	5,986	
260	H. C. 14192.....	16	9	- 9.62	42.87	7. 10. 53	1	74. 32. 43.67	6,104	
261	δ Geminorum.....	Jan. 26		- 9.06	45.49					
262	—	Feb. 22		- 8.21	44.89	7. 11. 10	2	67. 44. 46.19	6,128	
263	H. C. 14232.....	Mar. 11	8.9	- 6.10	49.09	7. 11. 59	1	63. 13. 50.22	6,196	
264	*.....	13	8	- 9.62	34.70	7. 14. 28	1	74. 21. 35.50	6,402	
265	H. C. 14350.....	15	9	- 7.08	1.68	7. 15. 24	1	66. 47. 2.71	6,480	
266	H. C. 14369.....	11	7.8	- 9.62	45.15	7. 15. 54	1	74. 11. 45.96	6,521	
267	H. C. 14407.....	16	8.9	- 8.63	37.93	7. 17. 11	1	71. 33. 38.82	6,627	
268	H. C. 14455.....	13	8	- 9.62	12.48	7. 18. 53	1	74. 23. 13.28	6,767	
269	H. C. 14525.....	15	8	- 8.18	46.09	7. 20. 43	1	70. 3. 47.03	6,918	
270	H. C. 14534.....	11	8	- 9.17	46.06	7. 20. 52	1	72. 48. 46.91	6,930	
271	H. C. 14550.....	16	8.9	- 7.75	34.29	7. 21. 23	1	68. 54. 35.26	6,973	
272	H. C. 14620.....	13	7	- 9.05	56.31	7. 23. 9	1	72. 35. 57.17	7,118	
273	H. C. 14668.....	15	8.9	- 9.35	3.28	7. 24. 32	1	73. 42. 4.10	7,231	
274	Castor.....	Feb. 13		- 6.63	16.24					
275	—	20		- 6.00	15.65					
276	—	Mar. 1		- 5.28	15.29	7. 25. 1	4	57. 47. 16.81	+ 7,270	
277	—	4		- 5.04	14.93					

No. 249. By an Equatorial observation on Dec. 12, 1855, the R.A. of this star in the list, Cēl. was found to be 30° too small.

No. 260. The minutes of the N.P.D. were verified by a circle observation Feb. 16, 1853. The N.P.D. of H. C. is 1' less.

No. 264. The N.P.D. agrees with that of H. C. 14336. The R.A. was found by an Equatorial observation on Dec. 12, 1855. The R.A. of H. C. appears to apply to the star observed with the transit on March 16, the magnitude of which as seen on Dec. 12, 1855 was about the 9th.

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1850 as observed.	Approximate R.A. Jan. 1, 1850.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1850.	Annual Variation.	Notes.
				"	"	h. m. s.		° ' "	"	
278	Castor R.....	Feb. 13		- 6.63	16.64					
279	—	20		- 6.00	15.99					
280	—	Mar. 1		- 5.28	17.51		4	57.47.16,07		
281	—	4		- 5.04	16.31					
282	68 Geminorum.....	16	7	- 9.37	16,71	7.25.3	1	73.51.17,52	+ 7,273	
283	υ Geminorum.....	11	5	- 6.05	31,05	7.26.41	1	62.46.32,20	7,406	
284	H. C. 14792.....	13	9	- 9.36	46,16	7.27.56	1	73.35.46,98	7,507	
285	B.A.C. 2499.....	15	8	- 7.99	29,96	7.28.16	1	69.30.30,91	7,534	
286	*.....	16	10.11	- 7.41	56,65	7.28.48	1	67.47.57,65	7,578	
287	Procyon.....	4		- 12.66	39,10	7.31.27	1	84.23.39,65	7,792	
288	H. C. 14913.....	11	9	- 7.21	44,66	7.31.45	1	65.24.45,70	7,816	
289	H. C. 14929.....	15	9	- 7.06	52,19	7.32.37	1	66.33.53,23	7,886	
290	c Geminorum.....	16	7	- 6.16	46,37	7.34.58	1	63.51.47,48	8,074	
291	κ Geminorum.....	11	5	- 6.89	47,10	7.35.23	1	65.14.48,17	8,108	
292	H. C. 15029.....	15	9.10	- 6.75	56,89	7.36.4	1	65.30.57,96	8,162	
293	Pollux.....	Feb. 7		- 8.06	56,93					
294	—	13		- 7.64	56,68					
295	—	20		- 7.08	55,09	7.36.8	4	61.36.57,19	8,168	
296	—	Mar. 4		- 6.24	55,34					
297	Pollux R.	Feb. 7		- 8.06	58,92					
298	—	13		- 7.64	57,63		4	57,45		
299	—	20		- 7.08	57,94					
300	—	Mar. 4		- 6.24	57,06					
301	79 Geminorum....	1		- 8.53	40,70					
302	—	6		- 8.35	40,05	7.36.21	2	69.19.41,34	8,185	
303	H. C. 15124.....	11	9	- 7.93	56,35	7.38.56	1	68.41.57,33	8,391	
304	82 Geminorum....	16	7.8	- 7.01	29,88	7.39.35	2	66.29.31,78	8,443	
305	—	28	7.4	- 6.43	31,60					
306	H. C. 15172.....	12	8	- 6.82	28,83	7.40.17	1	65.8.29,91	8,498	
307	H. C. 15183.....	15	8	- 6.72	34,49	7.40.33	1	65.21.35,56	8,519	
308	H. C. 15281.....	16	9	- 8.18	50,24	7.43.26	1	70.9.51,18	8,747	
309	84 Geminorum....	Feb. 13		- 8.82	1,09					
310	—	Mar. 12	8	- 7.49	2,16	7.44.6	2	67.17.2,64	8,799	
311	H. C. 15323.....	15	9.10	- 7.99	18,94	7.44.18	1	69.26.19,90	8,815	
312	φ Geminorum.....	Jan. 26		- 9.02	0,09	7.44.19	1	62.51.1,23	8,816	
313	H. C. 15398.....	Mar. 28	8½	- 8.16	17,96	7.46.17	1	71.39.18,85	8,971	
314	H. C. 15437.....	12	9	- 6.37	4,51	7.47.39	1	63.30.5,64	9,077	
315	H. C. 15482.....	16	9	- 8.59	0,48	7.48.52	1	71.30.1,37	9,172	
316	H. C. 15528.....	25	7½	- 7.20	43,89	7.50.5	1	68.26.44,87	9,267	
317	H. C. 15548.....	15	7.8	- 7.08	45,59	7.50.46	1	66.24.46,63	9,320	
318	B.A.C. 2658.....	28	7½	- 8.04	51,98	7.52.2	1	71.20.52,88	9,418	
319	H. C. 15646.....	16	8	- 8.09	2,73	7.53.21	1	69.51.3,67	9,519	
320	H. C. 15660.....	12	8.9	- 7.65	56,68	7.53.42	1	67.42.57,68	9,546	
321	H. C. 15681.....	15	8	- 9.58	16,89	7.54.14	1	74.38.17,68	9,587	
322	H. C. 15751.....	16	9.10	- 7.86	57,51	7.56.29	1	69.3.58,48	9,760	
323	μ ¹ Cancri.....	12	7	- 7.43	23,45	7.57.25	1	66.56.24,47	9,831	
324	H. C. 15809.....	25		- 6.65	48,43	7.58.3	1	66.47.49,46	9,879	
325	H. C. 15834.....	15	8.9	- 9.49	0,39	7.58.29	1	74.25.1,19	9,912	
326	H. C. 15880.....	16	9	- 8.08	49,86	7.59.56	1	69.47.50,81	10,022	
327	H. C. 15954.....	12	10	- 7.99	53,62					
328	—	13	9	- 7.92	52,71	8.2.8	3	68.46.53,37	10,188	
329	—	25	9	- 7.29	50,88					
330	Bessel VIII. 94....	16	9	- 9.81	20,18	8.4.38	1	75.37.20,94	10,376	
331	B.A.C. 2759.....	Feb. 11		- 9.76	32,84	8.5.36	2	71.52.33,92	10,449	
332	—	16		- 9.66	33,24					
333	H. C. 16099.....	Mar. 13	9	- 7.84	7,42	8.6.9	1	68.28.8,40	10,490	
334	H. C. 16118.....	25	8	- 7.29	2,63	8.7.4		68.48.3,60	10,558	
335	H. C. 16172.....	16	9	- 7.65	35,46	8.8.29	1	68.21.36,44	10,663	
336	H. C. 16245.....	Feb. 11		- 9.67	54,80	8.10.15	1	71.12.55,70	10,794	
337	H. C. 16283.....	Mar. 25	7½	- 7.57	54,90	8.11.19	1	69.40.55,85	10,873	
338	H. C. 16294.....	13	8.9	- 9.23	33,20	8.11.31	1	73.18.34,03	10,887	
339	H. C. 16327.....	16	9	- 8.63	2,87	8.12.37	1	71.41.3,76	10,968	
340	Bessel VIII. 415....	Apr. 5	7½	- 9.13	50,43	8.15.59	1	76.0.51,18	11,213	
341	B.A.C. 2810.....	Mar. 13	8	- 8.95	54,93	8.16.13	1	72.19.55,80	11,230	
342	φ ² Cancri. sp.....	Feb. 11		- 8.57	45,05	8.17.42	1	62.34.46,20	11,338	
343	ο Ursæ Majoris....	16		- 2.52	9,38	8.17.46	1	28.47.9,87	11,343	
344	ο Ursæ Majoris R..	16		- 2.52	7,19		1	7,44		
345	H. C. 16684.....	Mar. 25	8	- 9.23	11,18	8.22.26	1	75.4.11,96	11,677	
346	Bessel VIII. 586....	Apr. 5	8½	- 8.77	34,68	8.22.28	1	75.7.35,46	+ 11,679	

No. 286. Observed for H. C. 14817. It was ascertained by Equatorial observations Dec. 12, 1855, and March 13, 1856, that there is no star in the place of H. C. 14817.

No. 340. This N.P.D. agrees with one obtained in 1851. Bessel's appears to be 30" too great.

Reference Number.	Name of Star.	Day of Observation.	Observed Ang.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1850 as observed.	Approximate R.A. Jan. 1, 1850.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1850.	Annual Variation.	Notes.
				"	"	<i>h. m. s.</i>		<i>° ' "</i>	"	
347	H. C. 16756.....	Mar. 28	8	- 8,81	55,38	8.23.51	1	74. 9.56,19	+ 11,777	
348	H. C. 16810.....	Feb. 11		- 9,88	28,21	8.25.52	2	72.36.30,44	11,920	
349	—	16		- 9,81	30,95					
350	B.A.C. 2888.....	Mar. 25	7	- 8,92	15,99	8.27.43	1	74.10.16,80	12,050	
351	Argelander 9164...	Feb. 11		- 5,48	16,86	8.29.21	1	37.43.17,98	12,164	
352	H. C. 16964.....	Mar. 28	7½	- 6,09	11,99	8.29.56	1	65.47.13,05	12,204	
353	Bessel VIII. 828...	Apr. 2	7½	- 9,74	53,52	8.31.39	1	77.55.54,22	12,323	
354	B.A.C. 2927.....	Mar. 25	7	- 7,31	39,09	8.32.36	1	68.59.40,06	12,388	
355	γ Cancri.....	Feb. 16		- 9,21	43,29	8.34.36	1	67.59.44,29	12,525	
356	γ Cancri R.....	16		- 9,21	40,63		1	40,37		
357	Bessel VIII. 936...	Mar. 28	8	- 9,26	22,92	8.35.34	1	75.50.23,68	12,592	
358	δ Cancri.....	Apr. 20		- 6,55	53,70	8.36. 9	1	71.17.54,60	12,631	
359	H. C. 17249.....	Mar. 25	7¼	- 7,24	20,63	8.37.41	1	68.50.21,60	12,735	
360	α² Cancri.....	13		-10,18	34,75					
361	—	15		-10,13	34,17	8.38.42	2	77.20.35,18	12,804	
362	H. C. 17288.....	28	7¾	- 8,70	29,48					
363	—	Apr. 2	7¾	- 8,44	29,95	8.38.55	2	74. 7.30,52	12,818	
364	Bessel VIII. 1087...	Mar. 25	8¼	- 9,84	18,29	8.41.59	1	77.35.19,00	13,023	
365	54 Cancri.....	Apr. 5	5	- 8,25	47,09	8.42.40	1	74. 5.47,90	13,069	
366	H. C. 17441.....	Mar. 13		-10,13	47,98					
367	—	15		-10,09	48,23	8.43.14	2	77.18.48,82	13,107	
368	Bessel VIII. 1134 ..	28	8	- 9,24	58,15	8.43.45	1	76. 2.58,90	13,141	
369	Bessel VIII. 1210 ..	Apr. 5	8½	- 8,80	19,20	8.46.30	1	75.52.19,95	13,321	
370	ζ Hydræ.....	10		-11,05	12,51	8.47.28	1	83.29.13,08	13,385	
371	ζ Hydræ R.....	10		-11,05	15,21		1	15,38		
372	H. C. 17647.....	Mar. 13		-15,57	12,50					
373	—	15		-15,75	11,57	8.48.39	2	103.28.12,90	13,461	
374	Bessel VIII. 1264 ..	28	8¼	- 9,55	15,49	8.48.51	1	77.12.16,21	13,475	
375	α Cancri.....	Apr. 20		- 8,57	52,80	8.50.17	1	77.33.53,51	13,567	
376	H. C. 17741.....	Mar. 15		- 7,37	23,28	8.51.50	1	66.41.24,31	13,667	
377	Bessel VIII. 1344...	Apr. 5	8	- 8,65	29,02	8.51.56	1	75.34.29,78	13,673	
378	H. C. 17801.....	10	8	- 8,12	56,95	8.53.43	1	74.48.57,74	13,787	
379	Bessel VIII. 1441 ..	5	8	- 9,12	22,00					
380	—	10	8	- 8,88	21,43	8.56.18	2	77.11.22,43	13,950	
381	P.A.C. 3103	Mar. 15	8	- 8,78	20,00	8.57.51	1	72.17.20,87	14,047	
382	H. C. 17999.....	25	7¼	- 8,88	13,71					
383	—	Apr. 10	7½	- 8,01	15,66	8.59.50	2	74.41.15,48	14,171	
384	Bessel VIII. 1552 ..	2	8	- 8,85	19,68					
385	—	5	7½	- 8,69	18,26	9. 1.17	2	76. 2.19,72	14,260	
386	B.A.C. 3122.....	Mar. 15	8	-10,06	39,19	9. 1.37	1	77.49.39,89	14,281	
387	Bessel IX. 22.....	23	8	- 9,23	35,28	9. 2. 6	1	75.39.36,04	14,310	
388	π¹ Cancri	25	6¾	- 8,77	8,73					
389	—	Apr. 10	6¼	- 7,87	9,68	9. 4. 5	2	74.24.10,00	14,432	
390	H. C. 18198.....	Mar. 15	9	- 8,46	29,57	9. 5.50	1	71. 7.30,47	14,537	
391	Bessel IX. 119.....	Apr. 2	8¾	- 9,33	55,15	9. 6.16	1	77.46.55,85	14,563	
392	H. C. 18251.....	10	8	- 7,83	14,00	9. 7.36	1	74.22.14,80	14,643	
393	Σ 1332. <i>sp.</i>	Mar. 5		- 8,01	14,39	9. 8.40	1	65.43.15,45	14,707	
394	Bessel IX. 195.....	15	8	- 9,78	23,71	9. 9.43	1	76.52.24,44	14,769	
395	H. C. 18321.....	Apr. 10	8	- 6,58	34,12	9. 9.50	1	70.35.35,04	14,776	
396	H. C. 18350.....	Mar. 23	7½	- 9,92	15,49	9.10.46	1	78.39.16,17	14,831	
397	Bessel IX. 233.....	Apr. 2	9	- 9,50	18,87	9.11.32	1	78.32.19,55	14,876	
398	Bessel IX. 253.....	Mar. 25	8	- 9,77	53,46	9.12.23	1	78.23.54,14	14,926	
399	H. C. 18414.....	Apr. 10	6.7	- 7,26	59,32	9.13. 5	1	72.46. 0,17	14,967	
400	Bessel IX. 269.....	Mar. 5		- 9,92	5,81	9.13. 7	1	76.15. 6,55	14,969	
401	Bessel IX. 359.....	Apr. 10	8	- 7,98	58,98	9.17. 8	1	75. 9.59,76	15,201	
402	h Ursæ Majoris....	Mar. 5		- 0,70	9,89					
403	—	6		- 0,46	10,60	9.19.39	2	26.17.10,53	15,343	
404	h Ursæ Majoris R..	5		- 0,70	9,56					
405	—	6		- 0,46	10,19		2	10,33		
406	α Hydræ.....	4		-12,72	38,50					
407	—	15		-13,70	38,27	9.20.13	2	98. 0.38,94	15,375	
408	α Hydræ R.....	4		-12,72	37,63		1	37,81		
409	Bessel IX. 437.....	27	7½	- 9,24	48,60					
410	—	Apr. 10	7	- 8,51	49,91	9.20.25	2	76.57.49,97	15,387	
411	H. C. 18677.....	2	8	- 8,75	14,84					
412	—	5	7¼	- 8,59	15,17	9.22.15	2	76.24.15,74	15,489	
413	Bessel IX. 483.....	Mar. 25	8	- 9,02	49,60	9.22.30	1	75.50.50,36	15,503	
414	Bessel IX. 533.....	Apr. 10	9¾	- 8,67	20,18	9.24.31	1	77.36.20,89	15,614	
415	H. C. 18763.....	Mar. 23	7	- 7,90	13,87	9.25. 5	1	71. 3.14,78	+ 15,645	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1850 as observed.	Approximate R.A. Jan. 1, 1850.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1850.	Annual Variation.	Notes.
				"	"	h. m. s.		° ' "	"	
416	Bessel ix. 565.....	Apr. 2	8	- 9.43	34.81	9.25.38	1	78.52.35.48	+ 15,675	No. 417. Bessel ix. 593 was judged at the same time to be of Mag. 8½.
417	Bessel ix. 591.....	5	7½	- 8.21	29.67	9.26.58	1	75.15.30.44	15,747	
418	Bessel ix. 608.....	Mar. 25		- 9.80	34.11	9.27.31	1	79.4.34.78	15,778	
419	Bessel ix. 657.....	Apr. 2	9	- 9.87	4.50	9.29.36	2	80.39.5.10	15,889	
420		10	9½	- 9.53	4.45					
421	Bessel ix. 670.....	Mar. 23	6½	- 9.24	31.71	9.30.8	1	76.35.32.45	15,918	No. 422. The R.A. was found by an Equatorial observation March 11, 1856. The magnitude was then judged to be 9.10. The star is not as bright as Bessel ix. 657.
422	*.....	Apr. 2	9	- 9.86	8.96	9.30.23	1	80.38.9.59	15,931	
423	Bessel ix. 717.....	5	7½	- 9.50	47.73	9.32.30	1	79.53.48.37	16,043	
424	o Leonis.....	Mar. 4		- 10.24	39.29					
425		6		- 10.23	39.13	9.33.8	3	79.25.39.89	16,076	
426		Apr. 20		- 8.57	39.27					
427	o Leonis R.....	Mar. 4		- 10.24	(36.98)					
428		6		- 10.23	40.00		1	40.08		
429	H. C. 19036.....	27	8	- 7.88	12.69	9.34.2	1	72.14.13.56	16,123	No. 429. The N.P.D. of H. C. is 5' too small. The star is Bessel z. 274, 9h.32m.34s, which agrees in N.P.D. with the Cambridge observation.
430	H. C. 19162.....	27	8½	- 7.60	28.96					
431		Apr. 5	7¾	- 6.92	30.96	9.38.30	2	71.11.30.86	16,352	
432	Bessel ix. 929.....	5	8	- 8.02	55.67	9.42.41	1	75.10.56.44	16,562	
433	Bessel ix. 962.....	Mar. 27	9	- 10.40	38.46	9.44.14	1	82.49.39.04	16,638	
434	Bessel ix. 1028.....	Apr. 17	7	- 9.31	47.14	9.47.37	1	81.36.47.75	16,801	
435	H. C. 19438.....	10	9	- 7.45	52.72	9.48.19	1	74.32.53.52	16,834	
436	H. C. 19442.....	10	7¾	- 7.46	40.12	9.48.28	1	74.33.40.92	16,842	
437	Bessel ix. 1074.....	Mar. 11		- 10.12	53.60					
438		12		- 9.36	53.55	9.49.46	2	75.40.54.33	16,903	
439	H. C. 19503.....	21	7.8	- 8.62	55.05	9.50.2	1	74.3.55.86	16,916	
440	π Leonis.....	25		- 9.97	17.14	9.52.17	1	81.14.17.76	17,020	
441	Bessel ix. 1137.....	Apr. 10	9¼	- 8.57	48.21	9.53.4	1	78.30.48.89	17,057	
442	Bessel ix. 1139.....	Feb. 11		- 9.64	14.81	9.53.16	1	75.21.15.58	17,066	
443	H. C. 19589.....	Apr. 2	10.11	- 8.43	45.79	9.54.2	1	76.22.46.53	17,101	
444	Bessel ix. 1172.....	Mar. 11		- 9.26	19.66	9.54.29	1	74.56.20.44	17,122	
445	Bessel ix. 1176.....	12	9.10	- 9.25	51.00	9.54.47	1	75.8.51.78	17,135	
446	Bessel ix. 1229.....	Feb. 11		- 9.03	1.93	9.56.39	1	90.58.2.40	17,219	
447	Bessel ix. 1266.....	Apr. 26	8½	- 8.77	47.19	9.58.43	1	82.21.47.78	17,312	
448	Regulus.....	Mar. 11		- 9.54	6.88					
449		12		- 9.52	6.89					
450		25		- 8.97	4.89					
451		Apr. 5		- 8.38	5.66	10.0.23	7	77.18.6.55	17,385	
452		10		- 8.08	4.87					
453		20		- 7.48	5.43					
454		Oct. 28		- 9.62	6.72					
455	Regulus R.....	Mar. 25		- 8.97	6.46					
456		Apr. 5		- 8.38	6.23	10.0.23	4	6.80		
457		10		- 8.08	8.10					
458		20		- 7.48	6.31					
459	B.A.C. 3464.....	Mar. 21	8	- 9.64	25.51	10.1.34	1	79.40.26.16	17,436	
460	Bessel x. 37.....	Apr. 18	7½	- 9.60	44.00	10.3.17	1	84.0.44.56	17,510	
461	H. C. 19857.....	15		- 9.00	1.16					
462		26	9	- 8.40	0.20	10.4.42	2	81.35.1.29	17,570	
463	19 Sextantis.....	Mar. 23	6¼	- 10.47	46.53	10.5.0	1	84.38.47.08	17,582	
464	Bessel x. 96.....	21	9	- 9.18	44.18	10.6.10	1	77.31.44.89	17,632	
465	Bessel x. 110.....	Apr. 10	7½	- 9.73	27.29	10.6.53	1	83.30.27.86	17,661	
466	λ Ursæ Majoris.....	25		+ 2.95	17.55	10.8.2	1	46.20.18.92	17,708	
467	λ Ursæ Majoris R.....	25		+ 2.95	19.37		1	18.74		
468	Bessel x. 161.....	26	8¼	- 8.35	20.11	10.9.54	1	81.44.20.72	17,785	
469	Bessel x. 169.....	24	8¼	- 8.47	51.74	10.10.18	1	81.43.52.35	17,801	
470	Bessel x. 187.....	Mar. 21	9	- 9.09	59.35	10.11.19	1	77.16.0.07	17,841	
471	H. C. 20021.....	Apr. 2	7¼	- 8.95	46.34	10.11.31	1	79.19.47.00	17,850	
472	Bessel x. 221.....	Mar. 23	8	- 10.43	34.89	10.13.10	1	85.17.35.43	17,915	
473	H. C. 20080.....	Apr. 10	9	- 8.17	7.91	10.13.31	1	78.10.8.60	17,929	
474	Bessel x. 240.....	25	8	- 7.10	19.28					
475		26	7½	- 7.02	17.35	10.14.11	2	77.55.19.02	17,955	
476	Bessel x. 260.....	Mar. 21	8	- 8.69	16.48	10.15.23	1	75.20.17.25	18,002	No. 476. The annual precession in R.A. of this star in Weisse's Catalogue should be 3s.228 instead of 3s.023.
477	Bessel x. 261.....	Apr. 2	7¾	- 10.32	32.11	10.15.24	1	85.35.32.64	18,002	
478	H. C. 20183.....	10	8	- 8.10	0.73	10.17.0	1	78.5.1.43	18,063	
479	Bessel x. 297.....	10	7½	- 8.11	2.18					
480		24	7¾	- 7.17	2.65	10.17.29	2	78.5.3.11	18,082	
481	Bessel x. 330.....	Mar. 23	8	- 9.19	32.44	10.19.10	1	78.47.33.11	18,145	
482	Bessel x. 338.....	Apr. 25	9	- 9.30	35.07	10.19.33	1	85.11.35.61	18,159	
483	Bessel x. 352.....	Mar. 21	10	- 10.22	51.23	10.19.57	1	84.45.51.78	18,174	
484	B.A.C. 3583.....	Apr. 24	7¼	- 7.42	42.88	10.21.15	1	79.4.43.55	+ 18,222	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1850 as observed.	Approximate R.A. Jan. 1, 1850.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1850.	Annual Variation.	Notes.
				"	"	h. m. s.		° ' "	"	
485	Bessel x. 396.....	Apr. 26	10	- 7.98	3.93	10.22.15	1	81.20.45.54	+18,258	
486	Bessel x. 422.....	2	8	- 9.87	47.01	10.23.58	2	84.17.46.68	18,320	
487	.....	25	8	- 8.91	45.26					
488	ρ Leonis.....	Feb. 26		- 9.56	22.98	10.24.55	1	79.55.23.62	18,354	
489	Bessel x. 445.....	Apr. 24	10	- 7.38	55.49	10.25.27	1	79.12.56.15	18,372	
490	Bessel x. 474.....	25	8	- 6.64	48.88	10.26.55	1	77.6.49.60	18,423	
491	Bessel x. 552.....	2	7 $\frac{1}{2}$	- 9.53	29.09	10.30.39	2	83.18.28.99	18,550	
492	.....	25	7	- 8.46	27.74					
493	Bessel x. 603.....	24	8	- 6.36	1.13	10.33.45	1	76.20.1.87	18,651	
494	Bessel x. 593.....	25		- 9.33	12.18	10.34.28	1	86.25.12.70	18,675	No. 494. This is H. C. 20662. Bessel's R.A. is 1 ^m too small.
495	Bessel x. 658.....	2	8	- 9.79	47.86	10.36.48	2	85.10.47.17	18,748	
496	.....	24	8	- 8.96	45.41					
497	Bessel x. 718.....	2	7 $\frac{3}{4}$	- 8.74	34.23	10.40.21	1	80.22.34.86	18,856	
498	H. C. 20838.....	24	7 $\frac{1}{4}$	- 9.02	4.86	10.41.39	1	85.46.5.39	18,894	
499	Bessel x. 846.....	24	7 $\frac{1}{2}$	- 9.14	40.47	10.46.7	1	86.32.40.99	19,022	
500	H. C. 21015.....	25	8	- 7.60	13.71	10.48.8	1	81.31.14.82	19,077	
501	Bessel x. 910.....	2	8 $\frac{1}{4}$	- 9.76	31.40	10.50.5	2	86.37.31.42	19,129	
502	.....	24	10	- 9.07	30.40					
503	Bessel x. 938.....	10		- 9.15	35.94	10.51.49	2	84.50.36.32	19,174	
504	.....	25	7 $\frac{3}{4}$	- 8.47	35.63					
505	Bessel x. 988.....	24	9.10	- 7.24	9.65	10.54.48	1	81.3.10.27	19,249	
506	χ Leonis.....	Feb. 26		- 9.01	14.13	10.57.17	1	81.51.14.73	19,309	
507	Bessel x. 1048.....	Apr. 2	8 $\frac{1}{2}$	- 9.61	40.37	10.57.54	2	86.49.40.36	19,323	
508	.....	25	8	- 8.88	39.34					
509	Bessel x. 1058.....	2	8	- 9.58	32.03	10.58.32	1	86.47.32.54	19,338	
510	Bessel x. 1100.....	5	7 $\frac{1}{2}$	- 8.51	28.32	11.0.40	1	81.33.28.93	19,387	
511	Bessel xi. 13.....	25	7 $\frac{1}{2}$	- 9.89	56.34	11.2.23	1	90.59.56.81	19,425	
512	Bessel xi. 50.....	27	8.9	- 9.59	15.09	11.4.1	2	90.17.15.99	19,459	
513	.....	May 2	7 $\frac{3}{4}$	- 9.41	15.96					
514	Bessel xi. 77.....	Apr. 5	7	- 8.36	23.12	11.5.51	2	81.14.23.49	19,498	
515	.....	25	7 $\frac{3}{4}$	- 7.14	22.63					
516	Bessel xi. 91.....	Mar. 28	8 $\frac{1}{4}$	- 9.07	59.18	11.6.35	1	84.0.59.74	19,512	
517	Bessel xi. 112.....	Apr. 24	7.8	- 8.75	53.19	11.7.35	1	87.6.53.70	19,533	
518	γ Leonis.....	27	6	- 8.59	54.22	11.9.34	1	87.9.54.73	19,571	
519	η Leonis.....	5	4 $\frac{1}{2}$	- 9.36	38.84					
520	.....	24	5.6	- 8.77	40.81	11.11.13	3	87.31.40.73	19,602	
521	.....	May 2	6	- 8.39	41.03					
522	H. C. 21626.....	Mar. 28	7 $\frac{1}{2}$	- 9.28	18.39	11.13.14	1	86.45.18.90	19,639	
523	σ Leonis.....	25		- 8.89	57.74	11.13.24	2	83.8.58.07	19,642	
524	.....	26		- 8.87	57.24					
525	Bessel xi. 243.....	Apr. 24	9.10	- 9.08	48.35	11.14.28	1	89.2.48.83	19,660	
526	H. C. 21696.....	20	8	- 8.34	13.08	11.16.10	2	85.33.13.33	19,689	
527	.....	May 2	8	- 7.71	12.53					
528	Bessel xi. 295.....	Apr. 27	7 $\frac{3}{4}$	- 6.77	14.07	11.17.38	1	81.13.14.69	19,713	
529	Bessel xi. 329.....	24	8	- 8.73	11.09	11.18.55	2	88.7.10.74	19,733	
530	.....	25	7 $\frac{1}{2}$	- 8.69	9.38					
531	Bessel xi. 345.....	May 2	8	- 6.39	36.45	11.20.3	1	81.17.37.06	19,751	
532	τ Leonis.....	Feb. 26		- 8.27	4.99					
533	.....	Mar. 25		- 9.08	4.72	11.20.14	3	86.19.5.45	19,754	
534	.....	26		- 9.08	5.08					
535	Bessel xi. 420.....	Apr. 20	9.10	- 8.79	10.16					
536	.....	25	9	- 8.62	6.39	11.24.31	3	88.27.9.03	19,815	
537	.....	May 2	9 $\frac{1}{4}$	- 8.29	9.08					
538	H. C. 22038.....	2		- 8.49	57.79	11.29.50	1	89.42.58.26	19,882	
539	*.....	Apr. 25	8	- 7.17	53.81	11.30.54	1	83.23.54.38	19,893	No. 539. The R.A. was inferred from the times of transit of this and the next star across the middle wire of the Circle Telescope taken on April 25, viz. 11 ^h .33 ^m .59 ^s .1 and 11 ^h .34 ^m .22 ^s .2 by Molyneux. See also the note to the transit of H. C. 22079 on April 25, (p. 176).
540	H. C. 22079.....	25	8	- 7.17	0.36	11.31.18	1	83.23.0.93	19,898	
541	Bessel xi. 687.....	May 2	8.9	- 6.50	20.68	11.39.6	1	83.17.21.25	19,971	
542	Bessel xi. 701.....	2	8	- 6.48	35.03	11.39.55	1	83.16.35.60	19,978	
543	β Virginis.....	Feb. 26		- 7.59	23.83					
544	.....	May 20		- 6.41	23.31	11.42.53	2	87.23.24.08	19,999	
545	Bessel xi. 777.....	Apr. 27	8 $\frac{1}{4}$	- 7.39	59.80	11.44.46	1	86.4.0.33	20,011	
546	γ Ursæ Majoris.....	2		- 0.81	15.55	11.45.55	1	85.28.16.56	20,017	
547	γ Ursæ Majoris R.....	2		- 0.81	15.12		1	14.85		
548	H. C. 22440.....	May 2	8 $\frac{1}{4}$	- 6.34	56.28	11.47.8	1	83.21.56.85	20,024	
549	Bessel xi. 867.....	Apr. 27	7 $\frac{1}{4}$	- 8.94	15.79	11.50.27	2	93.32.17.14	20,037	
550	.....	May 3	8	- 8.78	17.53					
551	Bessel xi. 895.....	2	7	- 8.18	55.69	11.51.53	1	91.4.56.16	20,042	
552	π Virginis.....	Mar. 26		- 8.04	56.67	11.53.11	1	82.32.57.26	20,046	
553	Bessel xi. 910.....	Apr. 27	8 $\frac{1}{4}$	- 6.88	37.62	11.54.44	1	84.56.38.16	+20,049	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1850 as observed.	Approximate R.A. Jan. 1, 1850.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1850.	Annual Variation.	Notes.
				"	"	h. m. s.		" ' "	"	
554	Bessel xi. 959.....	May 2	7 $\frac{1}{4}$	- 8,19	41,08	11. 55. 51	1	91. 36. 41,55	+ 20,052	
555	o Virginis.....	15		- 3,08	2,25	11. 57. 34	1	80. 26. 2,88	20,053	
556	o Virginis R.....	15		- 3,08	1,22		1	1,33		
557	Bessel xi. 997.....	Apr. 27	8	- 9,13	14,07	11. 58. 11	1	95. 42. 14,57	20,054	
558	H. C. 22755.....	May 2	7	- 6,37	4,08	11. 59. 52	1	84. 39. 4,63	20,055	
559	10 Virginis.....	Apr. 27	6	- 7,22	33,33	12. 2. 0	1	87. 15. 33,84	20,054	
560	η Virginis.....	Mar. 26		- 7,90	56,96	12. 12. 14	2	89. 49. 57,43	20,026	
561		May 20		- 6,28	56,96					
562	Bessel xii. 264....	11	7	- 4,91	43,95	12. 16. 33	1	83. 11. 44,53	20,002	
563	B.A.C. 4200.....	Apr. 5	6	- 8,01	3,43	12. 20. 10	1	93. 47. 3,91	19,977	
564	γ Virginis.....	May 11		- 8,50	25,00	12. 26. 3	1	98. 37. 25,58	19,926	
565	Bessel xii. 445....	Apr. 5	8 $\frac{1}{2}$	- 7,62	7,96	12. 26. 30	1	91. 1. 8,43	19,921	
566	β Corvi.....	27		- 10,54	55,71	12. 26. 31	1	112. 33. 56,98	19,921	
567	β Corvi-R.....	27		- 10,54	1,48		1	112. 34. 0,95		
568	Bessel xii. 476....	May 11		- 3,18	52,28	12. 28. 26	1	77. 45. 52,98	19,901	
569	Bessel xii. 555....	Apr. 5	9	- 7,69	51,95	12. 33. 15	1	97. 55. 52,51	19,844	
570	Bessel xii. 561....	5		- 7,69	7,68	12. 33. 33	1	97. 57. 8,24	19,840	
571	γ Virginis. s.....	24		- 7,03	34,23	12. 34. 4	2	90. 37. 34,90	19,834	
572		May 21		- 5,74	34,63					
573	γ Virginis. n.....	20		- 5,79	30,27	12. 34. 4	1	90. 37. 30,74	19,834	
574	28 Virginis.....	11		- 7,72	28,47	12. 34. 13	1	96. 40. 29,00	19,832	
575	78 Ursæ Majoris...	18		+ 9,03	24,78	12. 54. 17	1	32. 49. 25,59	19,495	
576	78 Ursæ Majoris R.	18		+ 9,03	27,08		1	27,01		
577	Bessel xii. 935....	3	7 $\frac{3}{4}$	- 6,02	7,02	12. 54. 23	1	101. 18. 7,73	19,493	
578	Bessel xii. 1011...	3	9	- 7,31	44,59	12. 58. 35	1	99. 14. 45,19	19,403	
579	o Virginis.....	Mar. 28		- 6,26	11,63	13. 2. 11	2	94. 44. 12,62	19,321	
580		May 21		- 5,81	12,65					
581	Bessel xiii. 37....	3	8	- 7,04	52,08	13. 3. 29	1	98. 46. 52,67	19,290	
582	Bessel xiii. 163...	3	8 $\frac{1}{2}$	- 7,11	3,77	13. 10. 16	1	101. 19. 4,48	19,120	
583	Bessel xiii. 252...	3	8	- 7,04	46,66	13. 15. 44	1	102. 51. 47,49	18,970	
584	Spica.....	Mar. 28		- 5,27	33,85					
585		Apr. 24		- 6,52	35,62					
586		25		- 6,53	34,06					
587		May 22		- 6,47	36,30	13. 17. 18	7	100. 22. 35,59	18,925	
588		28		- 6,35	34,84					
589		30		- 6,31	36,71					
590		July 15		- 4,09	33,17					
591	Spica R.....	May 22		- 6,47	37,75		1	37,84		
592	Bessel xiii. 305....	3	9	- 6,51	39,93	13. 19. 2	1	99. 48. 40,54	18,874	
593	Bessel xiii. 391....	3	7 $\frac{1}{2}$	- 6,24	57,19	13. 23. 56	1	99. 28. 57,80	18,725	
594	ζ Virginis.....	Apr. 25		- 5,26	36,51	13. 27. 3	1	89. 49. 36,98	18,626	
595	Bessel xiii. 464....	May 3		- 6,16	51,29	13. 27. 35	2	100. 7. 51,00	18,608	
596		4	8	- 6,16	49,46					
597	H. C. 25129.....	29		+ 2,52	46,76	13. 27. 59	1	68. 26. 47,74	18,595	
598	81 Virginis.....	22		- 5,22	19,86	13. 29. 44	1	97. 6. 20,40	18,537	
599	Bessel xiii. 515....	June 4		- 1,79	2,08	13. 30. 7	1	86. 51. 2,59	18,524	
600	Bessel xiii. 590....	May 4	8 $\frac{1}{4}$	- 5,24	43,12	13. 34. 32	1	94. 54. 43,60	18,373	
601	84 Virginis.....	29		- 1,83	3,41					
602		30		- 1,75	3,58	13. 35. 32	3	85. 42. 3,43	18,337	
603		June 4		- 1,30	1,71					
604	B.A.C. 4584.....	May 4	7	- 5,74	13,17	13. 37. 56	1	100. 28. 13,83	18,252	
605	Bessel xiii. 670....	29		- 1,35	46,93	13. 38. 35	2	84. 7. 46,52	18,228	
606		June 4		- 0,77	44,99					
607	η Ursæ Majoris....	May 10		+ 4,69	8,15	13. 41. 37	1	39. 56. 9,38	18,116	
608	η Ursæ Majoris R..	10		+ 4,69	11,01		1	39. 56. 10,52		
609	Bessel xiii. 750....	4	7 $\frac{1}{4}$	- 5,65	12,54	13. 43. 36	1	102. 16. 13,33	18,041	
610	Bessel xiii. 796...	29		+ 0,11	15,79	13. 46. 33	1	79. 7. 16,46	17,926	
611	η Bootis.....	June 1		+ 2,60	50,39	13. 47. 33	2	70. 50. 53,12	17,887	
612		4		+ 3,03	54,03					
613	η Bootis R.....	1		+ 2,60	53,65		2	52,74		
614		4		+ 3,03	52,17					
615	α Draconis.....	May 10		+ 6,37	20,82	14. 0. 20	1	24. 54. 21,01	17,354	
616	α Draconis R.....	10		+ 6,37	19,75		1	20,30		
617	κ Virginis.....	22		- 4,17	21,17	14. 4. 54	1	99. 34. 21,78	17,149	
618	κ Virginis R.....	22		- 4,17	23,13		1	23,26		
619	Arcturus.....	24		+ 0,99	0,70					
620		29		+ 1,79	4,58	14. 8. 49	3	70. 2. 3,35	+ 16,970	
621		June 4		+ 2,67	1,96					
622	Arcturus R.....	May 24		+ 0,99	3,81					

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1850 as observed.	Approximate R.A. Jan. 1, 1850.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1850.	Annual Variation.	Notes.
				"	"	h. m. s.		° ' "	"	
623	Arcturus R.	May 29		+ 1,79	1,89		3	70 . 2 . 2,67		
624	—	June 4		+ 2,67	2,91					
625	λ Virginis.	May 22		- 4,40	40,74	14 . 11 . 0	1	102 . 40 . 41,55	+ 16,867	
626	λ Virginis R.	22		- 4,40	40,66		1	40,59		
627	Bessel xiv. 280	June 4		- 3,87	42,32	14 . 15 . 36	1	102 . 17 . 43,11	16,646	
628	B.A.C. 4772.	May 24		- 3,83	8,39					
629	—	29		- 3,71	7,97	14 . 16 . 38	2	100 . 59 . 8,87	16,595	
630	B.A.C. 4777.	June 8	7	- 3,79	18,30	14 . 17 . 10	1	102 . 40 . 19,11	16,569	
631	B.A.C. 4787.	May 24		- 3,96	53,15					
632	—	29		- 3,88	54,07	14 . 19 . 38	2	102 . 40 . 54,42	16,446	
633	Bessel xiv. 424	June 4		- 3,28	2,52	14 . 23 . 13	1	101 . 12 . 3,23	16,265	
634	Bessel xiv. 498.	May 24		- 3,32	10,65					
635	—	29		- 3,22	12,56	14 . 27 . 18	3	101 . 5 . 12,36	16,054	
636	—	June 8	9.10	- 2,91	11,77					
637	Bessel xiv. 557.	7	7.8	- 2,38	3,10	14 . 30 . 3	1	99 . 5 . 3,69	15,908	
638	Bessel xiv. 577	8	9	- 3,24	8,48	14 . 31 . 28	1	103 . 26 . 9,34	15,832	
639	Bessel xiv. 596	May 29		- 3,55	18,34	14 . 32 . 40	1	104 . 40 . 19,30	15,767	
640	π Bootis. np.	24		+ 1,49	6,54	14 . 33 . 41	1	72 . 56 . 7,39	15,712	
641	H. C. 26321.	June 8	9	- 3,60	7,23	14 . 36 . 9	1	106 . 14 . 8,27	15,578	
642	ε Bootis.	May 29		+ 4,23	24,08					
643	—	June 4		+ 5,39	24,46	14 . 38 . 26	2	62 . 17 . 25,43	15,450	
644	ε Bootis R.	May 29		+ 4,23	25,71					
645	—	June 4		+ 5,39	26,59		2	25,73		
646	Bessel xiv. 792	May 28		- 0,63	46,87	14 . 42 . 23	1	89 . 22 . 47,35	15,228	
647	α ² Libræ.	June 3		- 3,12	52,52					
648	—	8		- 3,07	54,70	14 . 42 . 35	2	105 . 24 . 54,61	15,217	
649	Bessel xiv. 805. np.	May 28		- 0,61	8,28	14 . 42 . 53	1	89 . 24 . 8,76	15,200	
650	Bessel xiv. 819.	28		- 0,60	18,06	14 . 43 . 22	1	89 . 24 . 18,54	15,172	
651	Bessel xiv. 1031.	28		- 2,07	49,73	14 . 54 . 56	1	102 . 15 . 50,52	14,491	
652	Σ 1908.	28		+ 5,12	49,57	14 . 58 . 54	1	54 . 56 . 50,91	14,249	
653	*.	June 1	9½	- 1,18	47,59	15 . 3 . 45	1	99 . 46 . 48,20	13,947	Nos. 653 and 654. Observed with Parthenope with the Northumberland Equatorial the same night. The R.A. of the former is inferred from the Equatorial comparisons.
654	Bessel xv. 132.	1		- 1,04	16,90					
655	—	3		- 0,96	18,13	15 . 7 . 58	2	100 . 2 . 18,13	13,679	
656	H. C. 27972.	15	9.10	- 2,68	2,65	15 . 13 . 39	1	112 . 26 . 3,91	13,312	
657	H. C. 28212.	15	7.8	- 1,76	29,13	15 . 21 . 57	1	110 . 12 . 30,35	12,760	
658	Bessel xv. 428.	7	8½	- 0,66	1,37	15 . 23 . 13	1	103 . 48 . 2,15	12,674	
659	H. C. 28345.	15	8	- 0,83	53,30	15 . 26 . 30	1	106 . 37 . 54,36	12,450	No. 658. The correction of the Pointer reading mentioned in the note to the observation, was verified by a circle observation March 27, 1856.
660	γ Libræ.	21		- 0,22	5,16	15 . 27 . 8	1	104 . 17 . 6,09	12,407	
661	H. C. 28389.	7	8½	- 0,78	38,29	15 . 28 . 7	1	106 . 30 . 39,34	12,339	
662	α Coronæ.	3		+ 4,99	36,12	15 . 28 . 20	1	62 . 46 . 37,27	12,324	
663	α Coronæ R.	3		+ 4,99	38,58		1	38,17		
664	H. C. 28453.	15	8	- 0,72	5,23	15 . 30 . 10	1	107 . 10 . 6,32	12,197	
665	H. C. 28518.	7	8	- 1,17	49,62	15 . 32 . 0	1	111 . 6 . 50,86	12,069	
666	Bessel xv. 683.	15	8.9	+ 0,20	45,23	15 . 35 . 29	1	103 . 32 . 46,10	11,824	
667	η Libræ.	21		+ 0,04	24,35	15 . 35 . 39	1	105 . 11 . 25,34	11,813	
668	Bessel xv. 708.	7	8	- 0,15	56,61	15 . 36 . 38	1	105 . 17 . 57,60	11,743	
669	α Serpentis.	3		+ 2,45	55,18	15 . 36 . 53	1	83 . 5 . 55,76	11,726	
670	H. C. 28752.	13	9	- 1,09	2,84	15 . 39 . 57	1	113 . 13 . 4,12	11,507	
671	θ Libræ.	13	6.7	+ 0,24	4,32	15 . 45 . 18	1	106 . 17 . 5,36	11,120	No. 671. The magnitude in B.A.C. is 4½.
672	H. C. 29038.	13	9	- 0,08	53,58	15 . 50 . 14	1	110 . 34 . 54,81	10,758	
673	β Scorpil.	13		+ 0,47	25,92	15 . 56 . 43	1	109 . 23 . 27,11	10,274	
674	B.A.C. 5330.	13	7	+ 0,47	10,40	15 . 56 . 44	1	109 . 23 . 11,59	10,274	
675	H. C. 29372.	19	8.9	+ 0,75	15,17	16 . 0 . 38	1	109 . 3 . 16,34	9,979	
676	ν Scorpil.	22		+ 0,89	55,53	16 . 3 . 17	1	109 . 3 . 56,70	9,778	
677	B.A.C. 5408.	13	8.9	+ 1,16	42,87					
678	—	19	8	+ 1,19	46,94	16 . 6 . 0	2	108 . 8 . 46,03	9,569	
679	B.A.C. 5436.	13	8.9	+ 1,21	50,61	16 . 10 . 21	1	109 . 50 . 51,82	9,233	
680	γ Herculis.	May 29		+ 3,02	26,35	16 . 15 . 18	1	70 . 29 . 27,27	8,846	
681	γ Herculis R.	29		+ 3,02	28,97		1	28,79		
682	χ Ophiuchi.	June 13	6.7	+ 1,86	38,20	16 . 18 . 20	1	108 . 6 . 39,33	8,608	
683	Antares.	21		+ 0,88	35,93					
684	—	22		+ 0,85	37,06	16 . 20 . 13	2	116 . 5 . 37,82	8,458	
685	H. C. 29968.	8	8	+ 1,97	7,11	16 . 21 . 1	1	108 . 20 . 8,25	8,395	
686	H. C. 30112.	8		+ 2,29	0,89	16 . 26 . 11	1	107 . 59 . 2,01	7,982	
687	λ Draconis.	July 16		+ 18,53	25,31	16 . 28 . 18	1	20 . 54 . 25,39	7,812	
688	λ Draconis R.	16		+ 18,53	25,33		1	25,99		
689	H. C. 30641.	June 8	8½	+ 3,17	48,79	16 . 43 . 34	1	109 . 5 . 49,97	6,565	
690	ι Ophiuchi.	16		+ 10,29	0,43	16 . 46 . 55	1	79 . 35 . 1,08	+ 6,287	
691	ι Ophiuchi R.	16		+ 10,29	1,65		1	1,74		

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1850 as observed.	Approximate R.A. Jan. 1, 1850.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1850.	Annual Variation.	Notes.
				"	"	h. m. s.		° ' "	"	
692	H. C. 30781	June 8	9	+ 3.49	7.76	16.48.24	1	107.41.8,87	+ 6,164	Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
693	H. C. 30896.	8	8.9	+ 3.71	3.19	16.52.30	1	107.7.4,27	5,822	
694	*	July 5	8.9	+ 2.96	45.56	16.56.10	2	115.15.49,90	5,514	
695	.....	8		+ 2.88	51.61				
696	H. C. 31042	June 8	9	+ 3.94	15.83	16.57.4	1	107.54.16,95	5,438	
697	H. C. 31170	8	9.10	+ 4.14	4.58	17.1.16	1	107.49.5,69	5,083	Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
698	η Ophiuchi	Mar. 5		+ 4.30	63.83	17.1.47	2	105.32.2,66	5,040	
699	.....	June 22		+ 4.59	59.49				
700	Bessel xvii. 63.	July 27	8.9	+ 6.82	55.27	17.4.43	1	100.29.55,93	4,791	
701	α Herculis	June 20		+ 7.16	4.55	17.7.48	1	75.26.5,32	4,528	
702	ν Serpentis	Mar. 5		+ 3.35	23.21	17.12.24	1	102.41.24,02	4,135	Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
703	θ Ophiuchi	June 22		+ 4.44	36.51	17.12.48	1	114.50.37,82	4,101	
704	ρ Herculis	20		+ 8.38	45.07					
705	.....	July 27		+ 17.21	44.85	17.18.31	2	52.42.46,32	3,610
706	ρ Herculis R.	June 20		+ 8.38	47.26		2	46,16		
707	July 27		+ 17.21	46.29					Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
708	α Ophiuchi.	29		+ 13.12	33.57	17.27.58	1	77.19.34,29	2,794	
709	α Ophiuchi R.	29		+ 13.12	35.76					
710	.....	30		+ 13.25	36.85		2	36,32	
711	Bessel xvii. 800 ...	29		+ 13.94	36.68	17.39.52	1	75.9.37,46	+ 1,760	
712	μ^1 Sagittarii	27		+ 7.50	30.92					Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
713	.....	Sept. 13		+ 6.82	29.89	18.4.48	2	111.5.31,64	- 0,420
714	μ^1 Sagittarii R.	July 27		+ 7.50	32.47		1	31,97		
715	H. C. 33894	27	7 $\frac{1}{2}$	+ 8.60	47.44	18.16.12	1	108.36.48,59	1,416	
716	δ Ursæ Minoris	4		+ 9.99	9.28	18.20.44	2	3.24.9,46	1,812	
717	4		+ 9.99	9.16					Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
718	δ Ursæ Minoris R. .	4		+ 9.99	9.47					
719	.....	4		+ 9.99	9.22		3	3.24.9,72	
720	.....	4		+ 9.99	8.96				
721	δ Ursæ Minoris SP.	Mar. 12		- 11.86	11.10	18.20.44	1	3.24.11,47		
722	δ Ursæ Min. SP. R.	12		- 11.86	11.31		1	11,68		Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
723	ϵ^1 Lyræ	Sept. 16		+ 24.85	0.21	18.39.22	1	50.28.61,60	3,428	
724	ϵ^1 Lyræ R.	16		+ 24.85	0.39		1	59,74		
725	H. C. 34882	12	7 $\frac{3}{4}$	+ 8.64	49.46	18.39.57	1	110.18.50,69	3,478	
726	β Lyræ	July 5		+ 9.91	27.43	18.44.32	1	56.48.28,73	3,872	
727	β Lyræ R.	5		+ 9.91	30.18		1	29,62		Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
728	B.A.C. 6485.	Sept. 12	6	+ 8.35	3.47	18.52.35	1	112.54.4,74	4,561	
729	B.A.C. 6524.	12	7.8	+ 8.65	18.26	18.57.57	1	112.43.19,53	5,017	
730	* (Mag. 9)	July 11		+ 10.70	23.55	18.58.43	1	32.12.24,32	5,082	
731	H. C. 36087	1		+ 10.68	26.63	19.6.36	1	110.2.27,85	5,746	
732	H. C. 36128	Aug. 16	8 $\frac{3}{4}$	+ 10.96	37.76	19.7.24	1	108.54.38,93	5,813	Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
733	* (Mag. 8)	July 9		+ 9.38	15.64	19.11.19	1	34.19.16,57	6,140	
734	H. C. 36501	Aug. 16	8 $\frac{1}{2}$	+ 11.63	41.71		2	107.28.42,23	6,459	
735	.....	Sept. 25	8.9	+ 10.72	40.56	19.15.9			
736	B.A.C. 6666.	Aug. 16	10	+ 9.85	(4,52)	19.20.35	1	117.17.14,08	6,907	
737	Sept. 12	7.8	+ 8.25	12.75					Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
738	B.A.C. 6683.	25	9 $\frac{1}{4}$	+ 9.55	42.95	19.23.21	1	111.49.44,20	7,134	
739	H. C. 36961	12	9	+ 11.77	30.33	19.25.22	1	106.35.31,38	7,298	
740	H. C. 37071	25	10	+ 9.60	43.03	19.27.59	1	112.13.44,29	7,511	
741	κ Aquilæ	Aug. 30		+ 14.51	23.98					
742	Sept. 16		+ 14.65	23.29	19.28.49	2	97.21.24,18	7,579	Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
743	κ Aquilæ R.	Aug. 30		+ 14.51	22.78		2	23,56		
744	.....	Sept. 16		+ 14.65	23.95				
745	ϵ^2 Sagittarii	25	7 $\frac{3}{4}$	+ 11.75	11.79	19.33.56	1	106.28.12,84	7,992	
746	γ Aquilæ	July 13		+ 11.48	51.06					
747	Aug. 14		+ 16.66	53.89	19.39.8	2	79.44.53,13	8,407	Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
748	γ Aquilæ R.	July 13		+ 11.48	53.07		1	53,16		
749	δ Cygni	11		+ 9.03	54.10	19.40.17	1	45.13.55,46	8,498	
750	δ Cygni R.	11		+ 9.03	58.61		1	57,99		
751	π Aquilæ	Aug. 9		+ 16.17	12.23	19.41.38	1	78.33.12,91	8,605	
752	α Aquilæ	May 28		+ 2.84	24.31					Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
753	.....	Dec. 27		+ 12.41	22.70	19.43.28	2	81.31.24,12	8,749
754	α Aquilæ R.	27		+ 12.41	27.31		1	27,44		
755	β Aquilæ	May 28		+ 3.11	50.97	19.47.57	1	83.57.51,53	9,101	
756	H. C. 37969	Sept. 13	8	+ 12.88	59.24	19.49.4	1	105.51.0,26	9,188	
757	H. C. 38104	Aug. 14	7 $\frac{1}{2}$	+ 13.41	28.20					Nos. 694 and 695. The two observations do not well agree, probably on account of the star being low and faint. This star was observed with Mars June 3, 1843, with the Northumberland Telescope. Its place does not accord with that of the Mars * (c).
758	.....	Oct. 1	8	+ 12.22	29.08	19.51.59	2	106.17.29,68	9,414
759	H. C. 38334	Sept. 16		+ 12.99	31.19					
760	Oct. 1	9	+ 12.44	27.26	19.57.15	2	106.10.30,26	- 9,818	

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				"	"	h. m. s.		"	"	
761	B.A.C. 6914.....	Aug. 14	8	+13.09	26.88	20. 0. 47	2	111. 1. 26.69	-10,087	
762	-----	Sept. 25	9.10	+11.24	24.03					
763	H. C. 38740.....	11		+12.53	22.26	20. 6. 2	2	109. 39. 24.62	10,481	
764	-----	Oct. 1	8 $\frac{1}{4}$	+11.57	24.58					
765	H. C. 38765.....	16	8.9	+11.69	4.04	20. 6. 40	1	107. 18. 5.13	10,528	
766	α^2 Capricorni.....	Aug. 30		+14.54	20.31	20. 9. 44	2	103. 0. 21.74	10,756	
767	-----	Sept. 16		+14.29	21.48					
768	α^2 Capricorni R....	Aug. 30		+14.54	21.91		1	21.81		
769	H. C. 38932.....	Sept. 25		+12.42	6.26					
770	-----	Oct. 1	8.9	+12.13	9.64	20.10. 8	2	108. 19. 9.09	10,785	
771	B.A.C. 6992.....	16	8	+12.54	11.84	20.12. 21	1	105. 15. 12.83	10,948	
772	β Capricorni.....	16		+12.58	4.26	20.12. 35	1	105. 15. 5.25	10,966	
773	κ Cephei.....	July 24		+ 9.00	35.41	20.13. 51	1	12. 44. 35.51	11,058	
774	κ Cephei R.....	24		+ 9.00	31.49		1	32.13		
775	H. C. 39116.....	Oct. 12	9	+11.55	59.90	20.14. 32	1	108. 49. 1.06	11,108	
776	H. C. 39210.....	Sept. 28	9	+13.46	1.35					
777	-----	Oct. 15	9.10	+12.70	3.78	20.16. 54	3	105. 18. 3.41	11,280	
778	-----	16	9	+12.67	2.12					
779	B.A.C. 7040.....	12	8	+ 9.77	22.53	20.19. 51	1	114. 28. 23.83	11,492	No. 779. The same star as H. C. 39352, the R.A. of which is 30" too great.
780	H. C. 39518.....	Sept. 11	8	+14.60	40.97					
781	-----	28	9	+14.04	41.61	20.24. 25	4	104. 12. 41.79	11,818	
782	-----	Oct. 12	9.10	+13.43	41.83					
783	-----	15	9.10	+13.29	39.08					
784	H. C. 39603.....	16	9	+12.56	25.23	20.26. 24	1	106. 18. 26.27	11,957	
785	H. C. 39671.....	15	9	+12.80	22.21	20.27. 53	1	105. 49. 23.23	12,061	
786	B.A.C. 7113.....	Sept. 28	8	+10.91	47.47	20.29. 11	1	114. 44. 48.77	12,152	
787	τ^2 Capricorni.....	21	7	+14.13	35.20					
788	-----	Oct. 16	7 $\frac{1}{4}$	+12.96	35.50	20.30. 53	2	105. 28. 36.35	12,270	
789	Bessel xx. 823....	15	9 $\frac{1}{4}$	+12.89	4.11	20.32. 16	1	105. 56. 5.13	12,365	No. 789. Bessel's N.P.D. is about 12" greater.
790	α Delphini.....	31		+22.56	49.68	20.32. 40	1	74. 36. 50.47	12,393	
791	α Delphini R.....	31		+22.56	49.97		1	49.92		
792	Bessel xx. 900....	Sept. 25	8 $\frac{1}{2}$	+13.88	17.25	20.35. 7	1	105. 43. 18.26	12,561	
793	H. C. 39981.....	Oct. 16	9	+11.54	40.62	20.35. 20	1	109. 52. 41.84	12,576	
794	*.....	Sept. 21	9.10	+14.39	47.50	20.37. 39	1	105. 15. 48.49	12,733	
795	H. C. 40081.....	Oct. 7		+21.83	40.10					
796	-----	Nov. 4		+21.39	41.65	20.37. 46	2	78. 13. 41.56	12,741	No. 795. This is Σ 2723.
797	Bessel xx. 1009...	14		+21.85	22.31	20.39. 14	1	74. 38. 23.10	12,840	No. 797. The south star of Σ 2725.
798	Bessel xx. 1051...	Oct. 26	8.9	+12.69	56.14	20.40. 47	1	105. 26. 57.14	12,943	
799	H. C. 40311.....	Sept. 11	7.8	+13.99	31.88	20.44. 59	1	109. 40. 33.09	13,222	
800	H. C. 40330.....	Oct. 26	8	+11.32	31.41	20.45. 33	1	109. 33. 32.61	13,259	
801	B.A.C. 7263.....	26	7 $\frac{3}{4}$	+12.46	16.89	20.49. 16	1	106. 36. 17.94	13,501	
802	Bessel xx. 1305....	Sept. 11	9.10	+15.86	1.91	20.50. 50	1	102. 4. 2.68	13,603	
803	9 Aquarii.....	Nov. 4		+12.89	46.67					
804	-----	6		+12.78	46.06	20.52. 52	3	104. 6. 47.64	13,733	
805	-----	14		+12.35	47.43					
806	H. C. 40684.....	Oct. 26	8	+11.39	5.74	20.54. 13	1	109. 50. 6.95	13,818	
807	Bessel xx. 1419...	Sept. 28	8.9	+15.10	19.08	20.55. 23	1	103. 26. 19.94	13,892	
808	η Capricorni.....	Nov. 11		+10.33	37.34	20.55. 52	1	110. 26. 38.57	13,923	
809	θ Capricorni.....	4		+11.64	31.36					
810	-----	6		+11.54	31.43	20.57. 31	2	107. 49. 32.51	14,027	
811	Bessel xx. 1486...	Oct. 26	9	+13.68	55.38	20.58. 9	1	103. 35. 56.26	14,066	
812	H. C. 40866.....	Sept. 28	9	+14.36	20.83	20.58. 52	1	106. 20. 21.87	14,110	
813	* (Mag. 9).....	Nov. 14		+11.13	59.96	21. 0. 17	1	107. 53. 1.08	14,198	
814	H. C. 40973. <i>nf</i> ...	Oct. 7		+26.55	54.92	21. 0. 40	1	56. 27. 56.23	14,222	No. 814. Σ 2760.
815	ν Aquarii.....	Nov. 11		+13.39	32.43	21. 1. 25	1	101. 58. 33.19	14,268	
816	H. C. 40994.....	Sept. 11	8	+15.26	20.60					
817	-----	Oct. 26	8.9	+12.80	19.30	21. 1. 48	2	106. 18. 20.99	14,292	
818	H. C. 41000.....	Nov. 4		+11.82	46.96					
819	-----	6		+11.70	48.66	21. 1. 59	2	107. 33. 48.91	14,303	
820	* (Mag. 9.10)....	14		+11.32	40.56	21. 2. 32	1	107. 27. 41.66	14,337	
821	H. C. 41070.....	Sept. 28	8.9	+14.81	7.13	21. 3. 48	1	105. 10. 8.12	14,414	
822	* (Mag. 9).....	Nov. 6		+11.65	24.49	21. 4. 31	1	107. 47. 25.60	14,458	
823	ζ Cygni.....	Oct. 28		+26.94	5.84	21. 6. 33	1	60. 23. 7.06	14,580	
824	ζ Cygni R.....	28		+26.94	8.47		1	7.99		
825	H. C. 41191.....	Nov. 4		+11.73	43.28	21. 6. 43	1	107. 57. 44.40	14,590	
826	Bessel xx1. 142....	Sept. 11	8	+16.13	19.72	21. 7. 17	1	102. 42. 20.53	14,624	
827	29 Capricorni.....	Aug. 20		+15.99	25.51					
828	-----	21		+15.99	27.68	21. 7. 26	2	105. 47. 27.62	14,633	
829	H. C. 41276.....	Sept. 28	9	+13.57	41.50	21. 8. 44	1	110. 7. 42.72	-14,711	

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				"	"	h. m. s.		° ' "	"	
830	Bessel xxi. 184....	Nov. 6		+14,23	26,62	21. 8. 53	2	100. 45. 27,82	-14,720	No. 833. On this day the accompanying star, Bessel xxi. 296, was estimated of 10.11 Mag.
831	—	14		+13,76	27,67					
832	Bessel xxi. 252....	Sept. 11	8	+15,86	47,83	21. 11. 34	1	104. 38. 48,78	14,878	
833	Bessel xxi. 295....	28	9 $\frac{1}{4}$	+15,64	60,17					
834	—	Nov. 5	9	+13,57	59,77	21. 13. 13	3	102. 57. 1,07	14,975	
835	—	6	8 $\frac{1}{4}$	+13,51	60,79					
836	Capricorni.....	Aug. 20		+16,03	7,41					
837	—	21		+16,02	10,98	21. 13. 53	3	107. 28. 10,42	15,013	
838	—	Oct. 15		+13,33	9,58					
839	α Cephei.....	28		+31,69	53,83	21. 15. 0	1	28. 2. 54,26	15,078	
840	α Cephei R.....	28		+31,69	54,52		1	54,83		No. 858. By the change of circle reading mentioned in the note to the observation, the N.P.D. agrees with Bessel's and with that of H. C. 42073, which is the same star.
841	H. C. 41544.....	Nov. 14	7.8	+13,14	56,13	21. 15. 33	1	102. 41. 56,94	15,109	
842	Bessel xxi. 378....	Oct. 26	9 $\frac{1}{4}$	+14,68	(33,44)					
843	—	Nov. 5	9.10	+14,10	37,25	21. 16. 30	1	101. 35. 37,99	15,164	
844	Bessel xxi. 416....	Sept. 11	8.9	+16,10	60,43					
845	—	28	9.10	+15,43	59,65	21. 18. 6	2	104. 13. 0,96	15,256	
846	Bessel xxi. 458....	Nov. 14	8 $\frac{1}{4}$	+12,62	39,56	21. 19. 48	1	104. 20. 40,49	15,352	
847	Bessel xxi. 495....	Sept. 12	8	+16,42	50,21					
848	—	28	9	+15,87	48,50	21. 21. 20	3	102. 43. 50,14	15,438	
849	—	Oct. 26		+14,37	49,27					No. 874. The N.P.D. of Bessel xxi. 1076, which is the same star, is 1' too great.
850	B.A.C. 7473.....	Nov. 6	8	+13,49	38,06	21. 23. 0	1	109. 53. 39,28	15,530	
851	B.A.C. 7485.....	Aug. 9		+16,32	27,17					
852	—	Nov. 14	7.8	+11,77	28,40	21. 25. 23	2	106. 51. 28,85	15,662	
853	Bessel xxi. 603....	Sept. 12	8	+16,51	59,43	21. 25. 48	1	102. 48. 0,25	15,684	
854	β Cephei.....	Oct. 28		+31,84	48,41	21. 26. 42	1	20. 5. 48,47	15,733	
855	β Cephei R.....	28		+31,84	48,45		1	49,13		
856	Bessel xxi. 638....	Nov. 6	9.10	+14,89	21,20	21. 26. 57	1	99. 30. 21,81	15,747	
857	ϵ Capricorni.....	Sept. 28	4.5	+14,12	5,14	21. 28. 41	1	110. 8. 6,36	15,840	
858	Bessel xxi. 695....	Nov. 14	8	+13,50	49,67	21. 29. 14	1	102. 7. 50,44	15,870	No. 894. Bessel's N.P.D. is 1' too small.
859	Bessel xxi. 717....	Sept. 11	8	+16,63	55,54	21. 30. 10	1	102. 42. 56,35	15,920	
860	γ Capricorni.....	Nov. 11		+13,48	13,01	21. 31. 47	1	107. 20. 14,10	16,005	
861	Bessel xxi. 861....	Sept. 28	9	+16,37	13,07	21. 35. 30	1	101. 49. 13,82	16,199	
862	45 Capricorni.....	Aug. 9		+16,52	59,81					
863	—	Nov. 14	7	+12,37	62,49	21. 35. 49	2	105. 26. 2,15	16,215	
864	ϵ Capricorni.....	Aug. 9		+16,35	4,71	21. 37. 0	1	99. 46. 5,32	16,276	
865	H. C. 42429.....	Oct. 31	8.9	+15,50	59,29					
866	—	Nov. 6	9	+15,14	58,97	21. 38. 43	2	99. 7. 59,72	16,363	
867	δ Capricorni.....	Aug. 21		+16,71	15,52	21. 38. 45	1	106. 48. 16,59	16,365	No. 894. Bessel's N.P.D. is 1' too small.
868	H. C. 42467.....	Sept. 28	9	+16,75	21,54					
869	—	Nov. 14	9	+14,15	22,44	21. 39. 55	2	100. 33. 22,65	16,424	
870	Bessel xxi. 1053...	Sept. 11	7	+17,28	3,62					
871	—	28	8	+16,92	3,46	21. 44. 30	3	100. 7. 4,52	16,651	
872	—	Nov. 14	7	+14,33	4,58					
873	μ Capricorni.....	Aug. 21		+16,94	16,99	21. 45. 7	1	104. 15. 17,92	16,681	
874	H. C. 42647.....	Oct. 31	8	+14,93	53,01	21. 45. 35	1	101. 0. 53,70	16,703	
875	B.A.C. 7639.....	Nov. 14	7 $\frac{3}{4}$	+11,34	24,52	21. 48. 30	1	108. 36. 25,67	16,843	
876	Bessel xxi. 1173...	Sept. 11	8.9	+17,19	1,95					No. 894. Bessel's N.P.D. is 1' too small.
877	—	Oct. 31	9.10	+14,84	1,67	21. 49. 59	2	101. 25. 2,53	16,913	
878	Bessel xxi. 1309...	Sept. 11	7.8	+16,77	15,75					
879	—	Oct. 11	8	+15,09	14,76	21. 56. 21	2	105. 10. 16,25	17,206	
880	α Aquarii.....	Aug. 12		+16,14	45,60					
881	—	Sept. 28		+18,91	45,23	21. 58. 5	2	91. 2. 45,88	17,284	
882	α Aquarii R.....	Aug. 12		+16,14	45,60		1	45,87		
883	ι Aquarii.....	Oct. 15		+15,01	40,19					
884	—	16		+14,93	40,23	21. 58. 20	2	104. 35. 41,16	17,295	
885	B.A.C. 7709.....	Sept. 11	7	+16,99	51,90					No. 894. Bessel's N.P.D. is 1' too small.
886	—	Oct. 11	7.8	+15,46	52,99	22. 0. 42	2	104. 1. 53,35	17,399	
887	ζ Cephei.....	Aug. 9		+8,16	10,82	22. 5. 39	1	32. 32. 11,61	17,610	
888	ζ Cephei R.....	9		+8,16	12,42		1	12,37		
889	Bessel xxi. 119...	Oct. 5	9	+17,79	58,08	22. 6. 29	1	96. 17. 58,60	17,645	
890	θ Aquarii.....	15		+16,84	39,68					
891	—	16		+16,79	41,26	22. 8. 55	2	98. 31. 41,05	17,745	
892	Bessel xxi. 208...	Nov. 4	10	+14,23	28,06	22. 10. 35	1	102. 50. 28,88	17,812	
893	Bessel xxi. 230...	Oct. 5	9	+16,32	57,73	22. 11. 33	1	102. 39. 58,54	17,851	
894	Bessel xxi. 315...	Nov. 1	9	+16,96	24,85	22. 15. 40	1	95. 14. 25,34	18,012	No. 894. Bessel's N.P.D. is 1' too small.
895	Bessel xxi. 343...	Oct. 11	9	+15,68	29,18					
896	—	Nov. 8	8	+13,57	31,96	22. 16. 32	2	103. 56. 31,47	18,046	
897	Bessel xxi. 357...	Oct. 5	8 $\frac{3}{4}$	+16,50	43,56	22. 16. 51	1	102. 8. 44,33	18,058	
898	Bessel xxi. 388...	Nov. 4	9	+14,00	30,72	22. 18. 9	1	103. 33. 31,60	-18,107	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1850 as observed.	Approximate R.A. Jan. 1, 1850.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1850.	Annual Variation.	Notes.
				"	"	h. m. s.		" ' "	"	
899	Bessel xxii. 444...	Oct. 11	9.10	+15.96	37.14	22.20.48	1	102.59.37.98	-18,205	No. 901. Of Mag. 5 by Argelander.
900	Bessel xxii. 459...	5	9 $\frac{1}{4}$	+16.52	14.50	22.21.44	1	102.17.15.29	18,239	
901	σ Aquarii.....	Nov. 4	6.7	+14.74	37.94	22.22.42	1	101.26.38.66	18,275	
902	Bessel xxii. 484...	4	9	+14.76	34.94	22.22.56	1	101.23.35.66	18,283	
903	δ Cephei.....	Aug. 9		+6.72	4.29	22.23.37	1	32.21.5.06	18,308	
904	δ Cephei R.....	9		+6.72	3.87		1	3.84		
905	Bessel xxii. 517...	Oct. 1	9	+17.41	1.76	22.24.33	1	99.3.2.35	18,340	
906	Bessel xxii. 723...	1	8.9	+17.12	27.69					
907	-----	5	8 $\frac{1}{2}$	+16.92	27.90	22.34.6	3	100.54.28.57	18,663	
908	-----	21	8	+15.95	28.08					
909	Bessel xxii. 747...	Nov. 4	9	+14.20	59.71	22.35.0	1	103.8.0.55	18,691	No. 913. The R.A. of Bessel xxii. 887, which is the same star, is 30" too small.
910	Bessel xxii. 748...	4	8.9	+14.21	57.99	22.35.4	1	103.6.58.83	18,693	
911	Bessel xxii. 797...	Oct. 1	9	+16.53	31.43	22.37.30	1	103.47.52.32	18,769	
912	Bessel xxii. 822...	5	9	+17.78	19.81	22.39.1	1	96.43.20.34	18,816	
913	H. C. 44661.....	Nov. 4	8 $\frac{1}{4}$	+13.65	4.30	22.42.27	1	104.51.5.27	18,918	
914	ϵ Cephei.....	Sept. 21		+19.10	15.03	22.44.21	1	24.35.15.21	18,972	
915	ϵ Cephei R.....	21		+19.10	16.87		1	17.43		
916	λ Aquarii.....	Oct. 5	5	+17.47	33.25	22.44.47	2	98.22.33.89	18,985	
917	-----	17		+16.88	33.38					
918	Bessel xxii. 981...	Nov. 4	9.10	+15.15	19.00	22.47.4	1	100.10.19.63	19,048	No. 938. Identified by a transit observation Oct. 6, 1855, when the magnitude was noted to be 8 $\frac{1}{2}$. See the note to the observation.
919	B.A.C. 7993.....	Oct. 5	8	+17.97	35.47	22.49.31	1	95.36.35.97	19,114	
920	H. C. 44904.....	Nov. 4	7 $\frac{1}{4}$	+17.62	39.90	22.50.40	1	92.12.40.37	19,144	
921	Bessel xxii. 1156..	4	8	+14.53	11.41	22.54.41	1	102.4.12.18	19,246	
922	α Andromedæ.....	26		+29.33	42.22	22.55.2	1	48.28.43.60	19,254	
923	α Andromedæ R...	26		+29.33	44.90		1	44.26		
924	α Pegasi.....	Oct. 31		+22.14	2.63	22.57.17	1	75.36.3.39	19,309	
925	α Pegasi R.....	31		+22.14	2.70		1	2.68		
926	Bessel xxii. 1292..	Nov. 5	9.10	+14.61	20.29	23.1.17	1	101.30.21.02	19,400	
927	ϕ Aquarii.....	Oct. 17		+17.18	23.50	23.6.33	2	96.51.24.19	19,512	No. 956 and 960. According to Bessel the N.P.D. of the following star exceeds that of the other by 2".
928	-----	Nov. 14		+15.35	23.82					
929	B.A.C. 8094.....	5	7.8	+16.76	47.27	23.7.51	1	94.18.47.75	19,538	
930	ψ^3 Aquarii.....	14		+14.14	46.73	23.11.9	1	100.25.47.38	19,601	
931	H. C. 45641.....	5	9.10	+16.98	24.23	23.11.20	1	93.26.24.71	19,604	
932	Bessel xxiii. 303...	Oct. 29	9.10	+17.62	25.68	23.15.2	2	92.17.25.11	19,670	
933	-----	Nov. 1	8 $\frac{3}{4}$	+17.48	23.61					
934	B.A.C. 8152.....	4	7	+17.80	53.11	23.15.50	2	90.31.54.14	19,684	
935	-----	14		+17.28	54.24					
936	Bessel xxiii. 325..	5	10	+17.30	26.20	23.16.4	1	92.8.26.67	19,687	No. 956 and 960. According to Bessel the N.P.D. of the following star exceeds that of the other by 2".
937	11 Piscium.....	5	8	+17.07	58.01	23.21.45	1	92.36.58.49	19,776	
938	H. C. 46040.....	Oct. 26		+19.76	43.12	23.23.18	1	83.5.43.70	19,798	
939	Bessel xxiii. 703..	7	9 $\frac{1}{4}$	+17.47	12.98					
940	-----	Nov. 5	9.10	+15.84	12.37	23.33.58	3	96.20.13.20	19,926	
941	-----	8	9	+15.62	12.72					
942	Bessel xxiii. 723..	Oct. 26	9	+15.68	37.18	23.35.22	2	99.47.38.13	19,939	
943	-----	29	9.10	+15.44	37.86					
944	Bessel xxiii. 776..	7		+19.62	21.38					
945	-----	Nov. 3		+21.02	21.48	23.37.50	3	76.9.22.99	19,961	No. 956 and 960. According to Bessel the N.P.D. of the following star exceeds that of the other by 2".
946	-----	14		+21.02	23.86					
947	Bessel xxiii. 778..	Oct. 1		+19.09	9.19	23.38.2	1	76.6.9.94	19,963	
948	Bessel xxiii. 808..	26	8.9	+18.31	37.44					
949	-----	Nov. 2	9	+18.12	38.06	23.39.39	3	87.56.38.69	19,976	
950	-----	5	8.9	+18.01	39.08					
951	Bessel xxiii. 817..	Oct. 29	8.9	+17.37	35.22	23.40.1	1	91.35.35.69	19,978	
952	Bessel xxiii. 830..	29	9	+17.36	26.18	23.40.31	1	91.36.26.65	19,983	
953	Bessel xxiii. 869..	7	8 $\frac{1}{4}$	+18.25	45.39					
954	-----	30	8 $\frac{1}{4}$	+17.93	44.43	23.42.28	3	88.51.45.67	19,996	No. 956 and 960. According to Bessel the N.P.D. of the following star exceeds that of the other by 2".
955	-----	Nov. 8	9	+17.56	45.71					
956	Bessel xxiii. 890..	Sept. 23	9	+17.50	47.16					
957	-----	Oct. 26	8.9	+16.13	46.91	23.44.4	4	97.26.47.55	20,006	
958	-----	Nov. 2	9	+15.61	46.52					
959	-----	5	9	+15.39	47.40					
960	Bessel xxiii. 897..	Sept. 28	9	+17.50	47.16					
961	-----	Oct. 26	8.9	+16.13	46.47	23.44.8	4	97.26.47.97	20,007	
962	-----	Nov. 2	9	+15.87	48.22					
963	-----	5	9 $\frac{1}{4}$	+15.39	47.84					No. 956 and 960. According to Bessel the N.P.D. of the following star exceeds that of the other by 2".
964	Bessel xxiii. 956..	23	7.8	+17.20	16.12	23.46.38	1	87.9.16.63	20,021	
965	*.....	Oct. 1		+18.71	6.78	23.46.55	2	76.14.7.17	20,022	
966	-----	Nov. 8	8.9	+20.68	6.05					
967	Bessel xxiii. 976..	Oct. 30	8.9	+18.09	37.97	23.47.41	1	87.35.38.47	-20,026	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1850 as observed.	Approximate R.A. Jan. 1, 1850.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1850.	Annual Variation.	Notes.
				"	"	<i>h. m. s.</i>		<i>° ' "</i>	<i>"</i>	
968	Bessel xxiii. 992..	Oct. 7	8.9	+19,20	38,00	23.48.25	1	75.59.38,75	-20,029	
969	Bessel xxiii. 1041..	26		+16,61	51,27	23.50.28	1	94.48.51,75	20,038	
970	27 Piscium.....	Sept. 21		+17,61	15,48					
971	—————	Oct. 17	7.8	+17,14	16,22	23.51.0	4	94.23.16,42	20,040	
972	—————	Nov. 14		+15,44	16,22					
973	—————	Dec. 12		+13,28	15,83					
974	H. C. 47030.....	Nov. 23	8	+15,31	9,04	23.51.52	1	92.41.9,52	20,042	
975	H. C. 47106.....	Oct. 1	8	+18,44	11,85	23.53.57	1	76.12.12,60	20,048	
976	30 Piscium.....	17	7.8	+16,67	50,94	23.54.16	1	96.50.51,47	20,049	
977	Bessel xxiii. 1143.	Nov. 23		+16,47	3,64	23.55.6	1	88.42.4,13	20,050	
978	33 Piscium.....	Sept. 21		+17,47	45,77	23.57.40	2	96.32.47,13	20,054	
979	—————	Nov. 14		+14,68	47,45					
980	Bessel xxiii. 1208.	2	8	+14,35	49,32	23.58.36	2	101.36.49,99	20,054	
981	—————	4		+14,16	49,17					
982	Bessel xxiii. 1216..	23		+14,33	53,31	23.59.6	1	95.10.53,80	20,055	
983	Bessel xxiii. 1219..	Dec. 20		+15,67	14,59	23.59.16	1	85.23.15,12	20,055	
984	Bessel xxiii. 1227..	Oct. 29	30	+14,70	1,85	23.59.43	2	101.52.4,24	-20,055	
985	—————	30		+14,61	5,12					

HORIZONTAL AND VERTICAL MEASURES
OF THE
DIAMETERS OF THE SUN AND MOON,
COMPARED WITH TABULAR DIAMETERS:
AND
RIGHT ASCENSIONS AND NORTH POLAR DISTANCES
OF THE SUN, THE MOON,
THE PLANETS FLORA, VICTORIA, IRIS, HEBE, PARTHENOPE, HYGEIA,
EGERIA AND NEPTUNE, AND PETERSEN'S THIRD COMET,
CONCLUDED FROM
OBSERVATIONS WITH THE TRANSIT AND MURAL CIRCLE,
AND COMPARED
WITH CALCULATED RIGHT ASCENSIONS AND NORTH POLAR DISTANCES.

1850.

I. SIDEREAL INTERVALS occupied by TRANSITS of the SUN'S DIAMETER, and VERTICAL DIAMETERS of the SUN corrected for REFRACTION and PARALLAX; compared with the values in the NAUTICAL ALMANAC.

Day of Observation.	Interval by Observation.	Seconds of Tabular Interval.	Excess of Tabular Interval.	Vertical Diameter by Observation.	Seconds of Tabular Diameter.	Excess of Tabular Diam.	Day of Observation.	Interval by Observation.	Seconds of Tabular Interval.	Excess of Tabular Interval.	Vertical Diameter by Observation.	Seconds of Tabular Diameter.	Excess of Tabular Diam.
1850.	m. s.	s.	s.	" "	" "	" "	1850.	m. s.	s.	s.	" "	" "	" "
Jan. 5	2 . 21,25	21,60	+ 0,35	32 . 35,25	34,40	- 0,85	June 19	2 . 17,48	17,80	+ 0,32	31 . 28,55	31,00	+ 2,45
30	16,72	16,86	+ 0,14	32,26	30,20	- 2,06	20	17,96	17,80	- 0,16	31,60	30,80	- 0,80
Feb. 4	15,65	15,68	+ 0,03				21	17,78	17,80	+ 0,02	29,25	30,80	+ 1,55
5	14,92	15,44	+ 0,52				22	17,85	17,80	- 0,05	34,16	30,60	- 3,56
6	15,00	15,22	+ 0,22				25	17,92	17,74	- 0,18	37,34	30,40	(- 6,94)
7	15,00	14,98	- 0,02	26,35	27,60	+ 1,25	26				33,49	30,40	- 3,09
13	13,67	13,66	- 0,01	25,60	25,40	- 0,20	29	17,52	17,56	+ 0,04			
15	13,12	13,24	+ 0,12				July 1	17,28	17,44	+ 0,16	31,05	30,20	- 0,85
16	13,16	13,04	- 0,12	26,83	24,20	- 2,63	2	17,36	17,36	0,00	28,96	30,20	+ 1,24
18	12,52	12,64	+ 0,12	21,53	23,40	+ 1,87	5	17,10	17,10	0,00	27,63	30,20	+ 2,57
19	12,36	12,44	+ 0,08	20,47	23,00	+ 2,53	8	16,82	16,80	- 0,02	30,37	30,20	- 0,17
27	10,97	11,02	+ 0,05	18,90	19,40	+ 0,50	9	16,59	16,70	+ 0,11	29,04	30,40	+ 1,36
Mar. 1	10,70	10,70	0,00	17,70	18,40	+ 0,70	10	16,47	16,58	+ 0,11			
5	10,00	10,14	+ 0,14	15,56	16,40	+ 0,84	12	16,28	16,34	+ 0,06			
6	10,01	10,02	+ 0,01	16,37	15,80	- 0,57	13	16,34	16,20	- 0,14	28,94	30,60	+ 1,66
11				12,90	13,20	+ 0,30	16	16,16	15,78	- 0,38	29,80	31,00	+ 1,20
12	9,28	9,38	+ 0,10	12,77	12,60	- 0,17	17	15,94	15,64	- 0,30	33,20	31,20	- 2,00
13	9,70	9,30	- 0,40	12,19	12,00	- 0,19	23				29,32	32,20	+ 2,88
18	9,14	8,98	- 0,16	11,90	9,40	- 2,50	24	14,42	14,56	+ 0,14	35,19	32,40	- 2,79
25	8,57	8,76	+ 0,19	5,33	5,60	+ 0,27	29	13,65	13,72	+ 0,07	35,62	33,40	- 2,22
26	8,68	8,76	+ 0,08	4,76	5,20	+ 0,44	Aug. 2				34,88	34,40	- 0,48
27	8,92	8,76	- 0,16	6,35	4,60	- 1,75	5	12,46	12,48	+ 0,02	37,18	35,20	- 1,98
28	8,81	8,76	- 0,05	7,80	4,00	- 3,80	6	12,52	12,30	- 0,22			
30	8,50	8,78	+ 0,28	32 . 0,06	3,00	+ 2,94	7	12,36	12,14	- 0,22	35,74	35,60	- 0,14
Apr. 10	9,38	9,34	- 0,04				8				36,58	36,00	- 0,58
18	10,16	10,14	- 0,02	31 . 55,57	52,60	- 2,97	10				36,51	36,60	+ 0,09
22	10,63	10,64	+ 0,01	51,80	50,60	- 1,20	12	11,42	11,32	- 0,10	39,64	37,40	- 2,24
25	11,22	11,06	- 0,16	49,61	49,00	- 0,61	13				38,94	37,80	- 1,14
27	11,30	11,34	+ 0,04	50,08	48,00	- 2,08	16	10,67	10,68	+ 0,01	40,20	38,80	- 1,40
29	11,47	11,64	+ 0,17	49,24	47,00	- 2,24	19				37,06	40,00	+ 2,94
May 2	12,23	12,10	- 0,13	47,99	45,60	- 2,39	22	9,86	9,82	- 0,04	39,62	41,20	+ 1,58
3				45,12	45,20	+ 0,08	23	9,70	9,70	0,00	42,13	41,60	- 0,53
10	13,53	13,38	- 0,15				24	9,14	9,58	(+ 0,44)	39,93	42,00	+ 2,07
13	13,84	13,88	+ 0,04	40,42	40,80	+ 0,38	26	9,49	9,34	- 0,15	44,92	42,80	- 2,12
17	14,30	14,54	+ 0,24	36,04	39,20	+ 3,16	28	9,29	9,10	- 0,19	42,07	43,60	+ 1,53
21	15,26	15,16	- 0,10	42,28	37,80	- 4,48	29	8,99	9,00	+ 0,01	44,08	44,20	+ 0,12
24	15,91	15,62	- 0,29				30	8,94	8,90	- 0,04	40,36	44,60	+ 4,24
25	15,89	15,76	- 0,13	36,13	36,40	+ 0,27	Sept 5	8,47	8,40	- 0,07	47,07	47,40	+ 0,33
27	15,89	16,02	+ 0,13				6	8,39	8,34	- 0,05	49,37	47,80	- 1,57
28	16,09	16,16	+ 0,07	33,58	35,60	+ 2,02	7				46,74	48,40	+ 1,66
29				30,72	35,20	+ 4,48	12	7,76	8,06	+ 0,30	50,94	50,80	- 0,14
30				38,33	35,00	- 3,33	13	8,16	8,04	- 0,12	52,60	51,40	- 1,20
31	16,68	16,52	- 0,16	35,59	34,60	- 0,99	14	8,03	8,02	- 0,01	52,45	52,00	- 0,45
June 1	16,54	16,64	+ 0,10	37,14	34,40	- 2,74	17	7,87	8,00	+ 0,13			
3				31,69	33,80	+ 2,11	21	7,96	8,06	+ 0,10	31 . 56,80	55,60	- 1,20
4	17,09	16,96	- 0,13	34,87	33,60	- 1,27	30	8,69	8,50	- 0,19	32 . 1,89	0,40	- 1,49
5	16,89	17,06	+ 0,17	32,78	33,40	+ 0,62	Oct. 5	9,08	8,96	- 0,12	2,56	3,20	+ 0,64
10	17,43	17,46	+ 0,03	36,06	32,20	- 3,86	7	9,36	9,20	- 0,16	3,58	4,40	+ 0,82
11	17,41	17,52	+ 0,11	30,52	32,00	+ 1,48	9				4,24	5,40	+ 1,16
13	2 . 17,90	17,64	- 0,26	31 . 32,58	31,80	- 0,78	10	9,43	9,60	+ 0,17	3,59	6,00	+ 2,41
							11	9,77	9,74	- 0,03	32 . 0,06	6,60	(+ 6,54)

Aug. 24. The first Limb at only two wires and the second Limb at three wires.

Oct. 11. Unfavorable circumstances: see the note to the Circle observation.

Day of Observation.	Interval by Observation.	Seconds of Tabular Interval.	Excess of Tabular Interval.	Vertical Diameter by Observation.	Seconds of Tabular Diameter.	Excess of Tabular Diam.	Day of Observation.	Interval by Observation.	Seconds of Tabular Interval.	Excess of Tabular Interval.	Vertical Diameter by Observation.	Seconds of Tabular Diameter.	Excess of Tabular Diam.
1850.	m. s.	s.	s.	" "	" "	" "	1850.	m. s.	s.	s.	" "	" "	" "
Oct. 12	2 . 10,11	9,88	- 0,23	32 . 7,29	7,20	- 0,09	Nov. 25	2 . 19,35	19,30	- 0,05	32 . 27,33	28,00	+ 0,67
15	10,30	10,34	+ 0,04	8,19	8,80	+ 0,61	26	19,36	19,50	+ 0,14	27,01	28,20	+ 1,19
16	10,51	10,52	+ 0,01				28	19,98	19,88	- 0,10	34,75	28,80	- 5,95
17	10,80	10,70	- 0,10	8,33	10,00	+ 1,67	29	19,93	20,06	+ 0,13	30,02	29,20	- 0,82
19	11,00	11,06	+ 0,06	8,34	11,00	+ 2,66	Dec. 2	20,25	20,60	+ 0,35	29,08	30,20	+ 1,12
26	12,44	12,44	0,00	13,84	14,60	+ 0,76	6	21,41	21,24	- 0,17	32,38	31,20	- 1,18
28	12,79	12,86	+ 0,07	14,42	15,60	+ 1,18	13	21,95	22,04	+ 0,09	35,01	32,80	- 2,21
29	13,15	13,08	- 0,07	14,75	16,20	+ 1,45	14	22,29	22,12	- 0,17	35,89	33,00	- 2,89
Nov. 8	15,28	15,38	+ 0,10	20,71	21,00	+ 0,29	16				33,85	33,40	- 0,45
14	16,90	16,82	- 0,08	23,09	23,80	+ 0,71	18	22,71	22,36	- 0,35	38,15	33,60	- 4,55
15	17,06	17,06	0,00	20,54	24,20	+ 3,66	20	22,57	22,42	- 0,15	35,82	33,80	- 2,02
19	18,02	17,98	- 0,04				23	2 . 22,61	22,44	- 0,17	32 . 34,12	34,20	+ 0,08
21	2 . 18,57	18,44	- 0,13	32 . 25,32	26,60	+ 1,28							

II. SIDEREAL INTERVALS occupied by TRANSITS of the MOON'S DIAMETER, and VERTICAL DIAMETERS of the MOON corrected for REFRACTION and PARALLAX; compared with the values in the NAUTICAL ALMANAC.

Day of Observation.	Apparent Interval by Observation.	Correction for Defect of Illumination.	Tabular Interval.	Excess of Tabular Interval.	Calculated Excess of Tabular Diam.	Day of Observation.	Measured Diameter.	Correction for Parallax.	Correction for Defect of Illumination.	Corrected Diameter.	Tabular Diameter.	Excess of Tabular Diameter.
1850.	m. s.	s.	m. s.	s.	" "	1850.	" "	" "	" "	" "	" "	" "
Apr. 25	2 . 9,64	+ 0,15	2 . 10,06	+ 0,27	+ 3,88	Feb. 26	32 . 58,79	- 24,33	+ 0,44	32 . 34,90	32 . 36,64	+ 1,74
Aug. 22	2 . 5,34	+ 0,03	2 . 5,66	+ 0,29	+ 4,11							

Greenwich Mean Solar Time of Transit of Centre.				Limb Observed.	Reduction to Transit of Centre.	R.A. of Centre from Observation.			Seconds of Tabular R.A.	Excess of Tabular R.A.	Limb Observed.	Parallax.	Assumed Semidiameter.	Geocentric N.P.D. of Centre from Observation.			Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.		
d.	h.	m.	s.		m.	s.	h.	m.	s.	s.	s.	"	"	"	°	'	"	"	"	
Jan.	5.	0.	5.18,5				19.	4.	35,75	36,04	+ 0,29		8,39			112.	37.	32,17	32,31	+ 0,14
	30.	0.	13.13,7				20.	51.	6,15	6,10	- 0,05		8,15			107.	40.	2,65	0,16	- 2,49
Feb.	4.	0.	13.50,8				21.	11.	26,10	26,21	+ 0,11									
	5.	0.	13.55,6				21.	15.	27,44	27,82	+ 0,38									
	6.	0.	13.59,8				21.	19.	28,22	28,63	+ 0,41									
	7.	0.	14. 3,6				21.	23.	28,61	28,65	+ 0,04		8,00			105.	18.	49,36	51,30	+ 1,94
	13.	0.	14. 8,2				21.	47.	12,49	12,35	- 0,14		7,88			103.	21.	54,75	53,82	- 0,93
	15.	0.	14. 3,6				21.	55.	1,07	0,79	- 0,28	N.	7,81	16. 12,30		102.	41.	7,02	5,93	- 1,09
	16.	0.	14. 0,0				21.	58.	54,02	53,89	- 0,13		7,81			102.	20.	23,73	23,53	- 0,20
	18.	0.	13.51,0				22.	6.	38,02	37,89	- 0,13		7,76			101.	38.	23,45	23,94	+ 0,49
	19.	0.	13.45,2				22.	10.	28,79	28,82	+ 0,03		7,73			101.	17.	7,70	7,64	- 0,06
	27.	0.	12.36,9				22.	40.	52,72	52,62	- 0,10		7,51			98.	21.	14,40	14,06	- 0,34
Mar.	1.	0.	12.13,9				22.	48.	22,75	22,72	- 0,03		7,45			97.	35.	53,20	54,76	+ 1,56
	5.	0.	11.22,3				23.	3.	17,22	17,08	- 0,14		7,32			96.	4.	0,29	0,77	+ 0,48
	6.	0.	11. 8,3				23.	6.	59,71	59,57	- 0,14		7,29			95.	40.	48,12	48,67	+ 0,55
	11.	0.	9.52,6	I.	1.4,74		23.	25.	26,61	26,43	- 0,18		7,12			93.	43.	47,31	46,17	- 1,14
	12.	0.	9.36,2				23.	29.	6,76	6,80	+ 0,04		7,09			93.	20.	12,23	12,07	- 0,16
	13.	0.	9.19,3				23.	32.	46,31	46,87	+ 0,56		7,04			92.	56.	34,86	35,57	+ 0,71
	18.	0.	7.53,5				23.	51.	3,08	3,42	+ 0,34		6,87			90.	58.	12,78	11,77	- 1,01
	25.	0.	5.46,5				0.	16.	31,55	31,15	- 0,40		6,60			88.	12.	37,23	36,27	- 0,96
	26.	0.	5.27,9				0.	20.	9,46	9,06	- 0,40		6,56			87.	49.	3,56	4,07	+ 0,51
	27.	0.	5. 9,2				0.	23.	47,23	46,94	- 0,29		6,51			87.	25.	34,72	34,77	+ 0,05
	28.	0.	4.50,7				0.	27.	25,22	24,83	- 0,39		6,47			87.	2.	5,90	8,57	+ 2,67
	30.	0.	4.13,5				0.	34.	41,10	40,72	- 0,38		6,40			86.	15.	27,39	27,07	- 0,32
Apr.	3.	0.	3. 0,0									S.	6,26	16. 0,30		84.	42.	56,22	56,56	+ 0,34
	10.	0.	0.59,0				1.	14.	48,15	48,06	- 0,09									
	17.	23.	58.57,6				1.	44.	18,78	18,44	- 0,34		5,62			79.	12.	4,36	4,13	- 0,23
	19.	23.	58.30,7	II.	1.5,19		1.	51.	44,92	44,56	- 0,36	N.	5,50	15.55,70		78.	30.	33,51	33,62	+ 0,11
	21.	23.	58. 5,4				1.	59.	12,62	12,30	- 0,32		5,45			77.	49.	49,77	48,72	- 1,05
	24.	23.	57.30,8				2.	10.	27,59	27,21	- 0,38		5,34			76.	50.	11,31	12,31	+ 1,00
	26.	23.	57. 9,9				2.	17.	59,81	59,53	- 0,28		5,26			76.	11.	33,14	32,30	- 0,84
	28.	23.	56.51,2				2.	25.	34,17	33,88	- 0,29		5,18			75.	33.	46,44	46,79	+ 0,35
May	1.	23.	56.27,0				2.	36.	59,56	59,42	- 0,14		5,07			74.	38.	55,91	55,48	- 0,43
	2.	23.	56.20,2	II.	1.6,13		2.	40.	49,28	49,06	- 0,22		5,03			74.	21.	6,40	8,18	+ 1,78
	9.	23.	55.48,1				3.	7.	52,94	52,73	- 0,21									
	12.	23.	55.43,1				3.	19.	37,64	37,31	- 0,33		4,70			71.	38.	13,59	13,53	- 0,06
	16.	23.	55.44,1				3.	35.	24,81	24,70	- 0,11		4,58			70.	41.	23,79	24,21	+ 0,42
	20.	23.	55.53,9				3.	51.	20,87	20,79	- 0,08		4,46			69.	49.	49,25	49,19	- 0,06
	23.	23.	56. 6,9				4.	3.	23,60	23,38	- 0,22	N.	4,35	15.48,40		69.	14.	43,79	44,17	+ 0,38
	24.	23.	56.12,4				4.	7.	25,68	25,26	- 0,42		4,36			69.	3.	45,47	44,97	- 0,50
	26.	23.	56.24,4				4.	15.	30,79	30,52	- 0,27	N.	4,28	15.47,90		68.	42.	52,56	51,56	- 1,00
	27.	23.	56.31,2				4.	19.	34,17	33,88	- 0,29		4,30			68.	32.	59,81	57,75	- 2,06
	28.	23.	56.38,5	II.	1.8,14		4.	23.	38,04	37,71	- 0,33		4,28			68.	23.	27,13	26,14	- 0,99
	29.	23.	56.46,4	II.	1.8,20		4.	27.	42,51	42,00	- 0,51		4,25			68.	14.	16,43	16,94	+ 0,51
	30.	23.	56.54,3				4.	31.	47,07	46,75	- 0,32		4,24			68.	5.	29,50	30,43	+ 0,93
	31.	23.	57. 2,5				4.	35.	51,81	51,94	+ 0,13		4,21			67.	57.	6,11	6,63	+ 0,52
June	2.	23.	57.21,4	II.	1.8,43		4.	44.	3,87	3,59	- 0,28		4,19			67.	41.	24,71	28,01	+ 3,30
	3.	23.	57.31,5				4.	48.	10,56	10,02	- 0,54		4,16			67.	34.	14,18	13,51	- 0,67
	4.	23.	57.41,0				4.	52.	16,58	16,82	+ 0,24		4,15			67.	27.	22,43	22,50	+ 0,07
	9.	23.	58.37,4				5.	12.	56,02	55,67	- 0,35		4,09			66.	59.	3,41	4,37	+ 0,96
	10.	23.	58.49,1				5.	17.	4,29	4,24	- 0,05		4,08			66.	54.	38,80	37,06	- 1,74
	12.	23.	59.14,1				5.	25.	22,44	21,98	- 0,46		4,06			66.	46.	56,92	55,65	- 1,27
	18.	0.	0.17,5				5.	46.	8,78	8,60	- 0,18									
	19.	0.	0.30,6	I.	1.8,89		5.	50.	18,50	18,12	- 0,38		4,03			66.	33.	43,31	42,51	- 0,80
	20.	0.	0.43,3				5.	54.	27,75	27,65	- 0,10		4,03			66.	32.	56,03	57,01	+ 0,98
	21.	0.	0.56,5				5.	58.	37,56	37,17	- 0,39		4,02			66.	32.	35,83	36,30	+ 0,47
	22.	0.	1. 9,2				6.	2.	46,87	46,66	- 0,21		4,03			66.	32.	40,30	40,49	+ 0,19
	25.	0.	1.47,9				6.	15.	15,33	14,75	- 0,58		4,03			66.	35.	22,87	21,87	- 1,00
	26.	0.	1.59,9										4,04			66.	37.	6,35	5,17	- 1,18
	29.	0.	2.36,9				6.	31.	50,73	50,58	- 0,15	S.	4,09	15.45,10		66.	44.	45,80	42,65	- 3,15
July	1.	0.	3. 0,6				6.	40.	7,59	7,45	- 0,14		4,06			66.	51.	49,03	50,03	+ 1,00
	2.	0.	3.12,2				6.	44.	15,73	15,56	- 0,17		4,07			66.	56.	1,45	0,23	- 1,22
	5.	0.	3.45,2				6.	56.	38,54	38,31	- 0,23		4,11			67.	10.	53,78	55,41	+ 1,63
	8.	0.	4.15,3				7.	8.	58,35	58,22	- 0,13		4,15			67.	29.	25,81	24,79	- 1,02
	9.	0.	4.24,5				7.	13.	4,21	4,12	- 0,09		4,16			67.	36.	21,73	21,58	- 0,15
	10.	0.	4.33,4				7.	17.	9,69	9,62	- 0,07	S.	4,21	15.45,20		67.	43.	39,62	41,48	+ 1,86

March 25. Change of observer.

March 25. Change of observer.

Greenwich Mean Solar Time of Transit of Centre.				Limb Observed.	Reduction to Transit of Centre.	R.A. of Centre from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Limb Observed.	Parallax.	Assumed Semidiameter.	Geocentric N.P.D. of Centre from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d.	h.	m.	s.		m.	s.	h.	m.	s.		"	°	'	"
July	12.	0.	4.50,0				7.25.19,39	19,30	-0,09					
	13.	0.	4.57,7				7.29.23,70	23,45	-0,25		4,23	68.7.58,04	58,86	+0,82
	16.	0.	5.17,4				7.41.33,09	32,94	-0,15		4,29	68.35.36,49	38,24	+1,75
	17.	0.	5.23,0				7.45.35,25	35,06	-0,19		4,31	68.45.36,21	35,34	-0,87
	22.	0.	5.42,2							S.	4,46	69.40.37,59	40,21	+2,62
	23.	0.	5.44,4								4,46	69.52.42,30	43,40	+1,10
	24.	0.	5.46,2								4,48	70.5.8,88	6,70	-2,18
	27.	0.	5.47,6	I.	1.7,03		8.13.34,42	34,23	-0,19					
	29.	0.	5.45,3				8.25.25,48	25,23	-0,25					
Aug.	2.	0.	5.34,3	I.	1.6,50		8.33.16,37	16,30	-0,07		4,62	71.11.57,90	57,27	-0,63
	5.	0.	5.19,8				8.48.51,47	51,43	-0,04		4,75	72.11.3.32	2,26	-1,06
	6.	0.	5.13,7				9.0.26,61	26,63	+0,02		4,84	72.58.26,22	25,64	-0,58
	7.	0.	5.7,3				9.4.17,06	17,19	+0,13	S.	4,91	73.14.49,64	47,04	-2,60
	8.	0.	5.0,1	II.	1.5,98		9.8.7,20	7,16	-0,04		4,91	73.31.27,85	24,63	-3,22
	10.	0.	4.44,0				9.11.56,54	56,54	0,00		4,95	73.48.18,75	18,23	-0,52
	12.	0.	4.25,9								5,02	74.22.52,45	52,22	-0,23
	13.	0.	4.15,8	II.	1.5,58		9.27.8,48	8,21	-0,27		5,09	74.58.27,31	26,11	-1,20
	16.	0.	3.42,1				9.30.54,87	54,68	-0,19		5,12	75.16.35,33	34,81	-0,52
	19.	0.	3.4,0	I.	1.5,12		9.42.10,73	10,71	-0,02		5,24	76.12.23,41	24,10	+0,69
	20.	0.	2.50,1	I.	1.5,05		9.53.22,25	21,89	-0,36		5,35	77.10.12,05	11,19	-0,86
	22.	0.	2.21,0				9.57.4,84	4,59	-0,25	N.	5,36	77.29.59,06	51,59	(-7,47)
	23.	0.	2.5,8				10.4.28,73	28,56	-0,17		5,47	78.9.49,43	47,78	-1,65
	24.	0.	1.50,2				10.8.10,13	9,86	-0,27		5,50	78.30.4,20	2,88	-1,32
	26.	0.	1.17,7				10.11.51,01	50,72	-0,29		5,54	78.50.30,23	28,87	-1,36
	28.	0.	0.43,5				10.19.11,49	11,22	-0,27		5,62	79.31.52,98	52,57	-0,41
	29.	0.	0.26,0				10.26.30,33	30,19	-0,14		5,70	80.13.54,46	56,36	+1,90
	30.	0.	0.8,0				10.30.9,37	9,15	-0,22		5,74	80.35.12,32	12,56	+0,24
Sept.	3.	23.58.34,4		I.	1.4,24		10.33.47,87	47,78	-0,09		5,78	80.56.38,87	37,86	-1,01
	4.	23.58.14,6					10.51.56,76	56,53	-0,23					
	5.	23.57.55,1					10.55.33,48	33,51	+0,03		6,03	83.8.6,88	2,65	-4,23
	6.	23.57.34,8		I.	1.4,14		10.59.10,40	10,26	-0,14		6,06	83.30.25,34	22,55	-2,79
	9.	23.56.34,0					11.2.46,69	46,80	+0,11		6,10	83.52.51,56	48,94	-2,62
	11.	23.55.52,8								N.	6,20	85.0.40,93	43,24	-2,31
	12.	23.55.31,7					11.20.47,08	46,85	-0,23		6,31	85.46.26,36	25,44	-0,92
	13.	23.55.10,6					11.24.22,47	22,45	-0,02		6,35	86.9.25,18	23,24	-1,94
	16.	23.54.7,5					11.27.57,91	57,95	+0,04		6,39	86.32.25,89	25,04	-0,85
	20.	23.52.43,0					11.38.44,31	44,06	-0,25					
	27.	23.50.19,0					11.53.5,80	5,51	-0,29		6,66	89.15.4,14	3,23	-0,91
	29.	23.49.39,7								S.	6,94	91.58.52,21	51,53	-0,68
Oct.	4.	23.48.7,2					12.25.30,90	30,99	+0,09		6,99	92.45.38,22	36,93	-1,29
	6.	23.47.32,6					12.43.40,95	40,76	-0,19		7,16	94.41.59,18	56,63	-2,55
	7.	23.47.15,7					12.50.59,33	59,14	-0,19		7,23	95.28.7,86	7,14	-0,72
	8.	23.46.59,7		II.	1.4,73					N.	7,24	95.51.6,24	6,34	+0,10
	9.	23.46.43,8					12.58.19,46	19,14	-0,32		7,29	96.13.58,79	60,94	+2,15
	10.	23.46.28,3					13.2.0,12	59,78	-0,34		7,33	96.36.50,19	50,54	+0,35
	11.	23.46.12,8					13.5.41,06	40,88	-0,18		7,36	96.59.33,87	34,84	+0,97
	14.	23.45.31,4					13.9.22,12	22,45	+0,33		7,39	97.22.14,90	13,34	-1,56
	15.	23.45.18,6					13.20.30,23	30,13	-0,10		7,48	98.29.31,29	30,55	-0,74
	16.	23.45.6,4					13.24.13,92	13,76	-0,16	S.	7,53	98.51.42,93	42,15	-0,78
	17.	23.44.54,3					13.27.58,24	57,95	-0,29		7,54	99.13.45,30	46,15	-0,15
	18.	23.44.43,4								S.	7,59	99.35.41,87	42,16	+0,29
	20.	23.44.23,0		I.	1.5,71		13.35.28,29	28,09	-0,20		7,60	99.57.28,28	29,66	+1,38
	25.	23.43.43,8					13.43.0,97	0,72	-0,25					
	27.	23.43.33,3					14.2.4,39	4,23	-0,16		7,77	102.25.36,11	35,58	-0,53
	28.	23.43.29,0					14.9.47,00	46,78	-0,22		7,83	103.6.17,20	17,28	+0,08
Nov.	6.	23.43.28,5		II.	1.7,57		14.13.39,27	39,21	-0,06		7,84	103.26.20,64	19,98	-0,66
	7.	23.43.32,5					14.49.7,75	7,40	-0,35	S.	8,05	106.16.24,94	26,12	+1,18
	13.	23.44.13,7					14.53.8,24	7,99	-0,25		8,06	106.34.4,31	3,63	-0,68
	14.	23.44.23,4					15.17.28,98	28,98	0,00		8,15	108.13.42,37	40,56	-1,81
	18.	23.45.11,3					15.21.35,24	35,38	+0,14		8,16	108.29.16,09	11,46	(-4,63)
	20.	23.45.40,1					15.38.9,47	9,31	-0,16		8,21	109.27.56,87	55,08	-1,79
	24.	23.46.47,1					15.46.31,51	31,23	-0,28		8,25	109.55.13,02	11,59	-1,43
	25.	23.47.5,8					16.3.24,85	24,74	-0,11		8,29	110.45.18,40	19,82	+1,42
	27.	23.47.45,6					16.7.40,22	40,08	-0,14		8,30	110.56.55,57	54,72	-0,85
	28.	23.48.6,5					16.16.13,24	13,03	-0,21		8,32	111.18.54,42	53,81	-0,58
							16.20.30,76	30,60	-0,16		8,33	111.29.17,40	17,34	-0,06

Aug. 20. The N.L. observed under very unfavorable circumstances. Aug. 24. 1 L. at two wires, 2 L. at three wires.
 Sept. 5. The circumstances not good. Nov. 15. The circumstances bad: see the note to the Circle observation.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES

Greenwich Mean Solar Time of Transit of Centre.	Limb Observed.	Reduction to Transit of Centre.	R. A. of Centre from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Limb Observed.	Parallax.	Assumed Semi- diameter.	Geocentric N.P.D. of Centre from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d. h. m. s.		m. s.	h. m. s.	s.	s.		"	"	° ' "	"	"
Dec. 1. 23. 49. 13,4			16. 33. 27,46	27,45	- 0,01		8,35		111. 57. 57,47	59,76	+ 2,29
5. 23. 50. 51,3			16. 50. 51,83	51,92	+ 0,09		8,38		112. 30. 20,94	19,99	- 0,95
12. 23. 54. 1,7			17. 21. 38,64	38,38	- 0,26		8,41		113. 9. 49,47	51,04	+ 1,57
13. 23. 54. 29,8			17. 26. 3,40	3,61	+ 0,21		8,41		113. 13. 39,61	40,15	+ 0,54
15. 23. 55. 28,1	II.	1. 11,13	17. 34. 54,97	54,84	- 0,13		8,42		113. 19. 52,20	54,76	+ 2,56
17. 23. 56. 26,6			17. 43. 46,81	46,89	+ 0,08		8,42		113. 24. 18,07	17,18	- 0,89
19. 23. 57. 26,4			17. 52. 39,87	39,58	- 0,29		8,43		113. 26. 46,75	46,89	+ 0,14
22. 23. 58. 55,5			18. 5. 58,91	59,18	+ 0,27		8,43		113. 26. 57,35	59,51	+ 2,16

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF THE MOON.

Greenwich Mean Solar Time of Transit of Centre.	Limb Observed.	Reduction to Transit of Centre.	R. A. of Centre from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Limb Observed.	Parallax.	Assumed Semi-diameter.	Geocentric N.P.D. of Centre from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d. h. m. s.		m. s.	h. m. s.	s.	s.		"	"	° ' "	"	"
Jan. 22. 7. 9. 17,7	I.	1. 8,53	3. 16. 46,08	46,25	+ 0,17						
23. 8. 4. 22,8	I.	1. 10,76	4. 15. 56,77	57,10	+ 0,33	S.	35. 43,42	16. 18,50	73. 56. 26,21	21,83	- 4,38
26. 11. 7. 27,8	I.	1. 14,02	7. 31. 21,45	22,47	+ 1,02	S.	34. 6,44	16. 43,53	71. 3. 3,07	0,23	- 2,84
Feb. 3. 18. 9. 20,4	II.	1. 4,01	15. 5. 55,79	56,74	+ 0,95	S.	50. 8,46	15. 7,61	102. 0. 0,16	1,40	+ 1,24
16. 3. 27. 28,9	I.	1. 4,13	1. 12. 54,61	54,41	- 0,20	S.	43. 14,70	15. 28,04	86. 55. 1,33	3,67	+ 2,34
18. 5. 4. 20,9	I.	1. 6,95	2. 57. 55,63	55,06	- 0,57	S.	38. 14,58	15. 48,10	78. 33. 8,12	9,21	+ 1,09
19. 5. 56. 32,2	I.	1. 8,81	3. 54. 12,14	12,11	- 0,03	S.	35. 55,17	15. 58,87	75. 4. 10,37	10,45	+ 0,08
20. 6. 51. 45,3	I.	1. 10,66	4. 53. 31,83	31,92	+ 0,09	S.	34. 6,07	16. 9,48	72. 25. 2,66	1,93	- 0,73
21. 7. 49. 50,3	I.	1. 12,13	5. 55. 41,95	41,96	+ 0,01	S.	33. 6,16	16. 19,10	70. 52. 20,55	18,66	- 1,89
22. 8. 49. 51,1	I.	1. 12,85	6. 59. 49,15	49,74	+ 0,59	N.	32. 40,80	16. 26,65	70. 39. 12,34	8,04	- 4,30
26. 12. 42. 18,8	II.	1. 8,43	11. 8. 41,19	42,34	+ 1,15	S.	42. 25,27	16. 18,32	82. 23. 38,54	36,42	- 2,12
						N.	42. 0,94	16. 18,32	82. 23. 40,29	36,42	- 3,87
Mar. 5. 18. 23. 25,7	II.	1. 5,00	17. 18. 20,04	20,57	+ 0,53	S.	51. 34,95	14. 53,06	108. 23. 6,09	15,28	+ 9,19
18. 3. 53. 11,6	I.	1. 8,15	3. 36. 58,17	57,91	- 0,26	S.	36. 26,12	15. 54,02	75. 56. 23,97	32,09	+ 8,12
25. 10. 29. 7,6	I.	1. 8,41	10. 41. 35,11	35,69	+ 0,58	N.	40. 9,19	16. 12,50	80. 15. 49,75	45,09	- 4,66
26. 11. 21. 31,7	I.	1. 7,16	11. 38. 4,34	4,84	+ 0,50	N.	43. 14,28	16. 6,03	84. 49. 41,77	35,51	- 6,26
27. 12. 12. 11,5	II.	1. 6,20	12. 32. 48,94	49,52	+ 0,58	N.	46. 1,04	15. 57,03	89. 37. 15,01	10,45	- 4,56
28. 13. 1. 35,1	II.	1. 5,59	13. 26. 18,30	18,74	+ 0,44	S.	48. 33,38	15. 46,06	94. 20. 10,18	4,85	- 5,33
Apr. 20. 7. 29. 5,8	I.	1. 9,52	9. 23. 34,04	35,03	+ 0,99	N.	35. 41,85	16. 7,36	74. 56. 49,05	44,40	- 4,65
24. 10. 53. 4,1	I.	1. 5,22	13. 3. 52,09	52,64	+ 0,55	N.	47. 0,01	15. 43,28	92. 21. 34,92	30,86	- 4,06
25. 11. 41. 15,4	I.	1. 5,03	13. 56. 7,94	8,19	+ 0,25	N.	49. 1,19	15. 34,43	96. 53. 52,18	49,27	- 2,91
	II.		13. 56. 7,67	8,19	+ 0,52						
27. 13. 17. 42,1	II.	1. 5,34	15. 40. 43,45	44,07	+ 0,62	N.	51. 21,49	15. 15,48	104. 28. 47,68	47,76	+ 0,08
May 20. 8. 1. 37,1	I.	1. 5,68	11. 55. 27,44	28,02	+ 0,58	N.	43. 11,57	15. 47,97	85. 57. 13,09	8,47	- 4,62
21. 8. 49. 41,5	I.	1. 4,86	12. 46. 36,14	36,87	+ 0,73	N.	45. 47,40	15. 39,26	90. 39. 19,31	16,46	- 2,85
22. 9. 36. 58,2	I.	1. 4,52	13. 37. 57,15	57,62	+ 0,47	N.	47. 58,00	15. 30,69	95. 14. 56,01	52,07	- 3,94
June 2. 18. 16. 41,1	II.	1. 2,96	23. 2. 27,59	28,00	+ 0,41	N.	48. 12,38	15. 3,34	98. 37. 23,17	29,32	+ 6,15
19. 8. 22. 19,1	I.	1. 4,30	14. 13. 29,44	29,75	+ 0,31	N.	48. 58,66	15. 22,42	98. 5. 49,54	49,44	- 0,10
21. 9. 56. 13,7	I.	1. 4,81	15. 55. 32,59	32,87	+ 0,28	N.	51. 5,18	15. 5,31	105. 17. 37,83	33,94	+ 1,11
22. 10. 44. 7,6	I.	1. 5,20	16. 47. 30,92	31,17	+ 0,25	N.	51. 33,84	14. 58,64	107. 48. 3,13	5,63	+ 2,50
24. 12. 21. 15,9	II.	1. 5,42	18. 32. 48,25	48,67	+ 0,42	N.	51. 41,78	14. 49,02	110. 5. 14,76	17,33	+ 2,57
July 15. 5. 32. 51,0	I.	1. 5,38	13. 6. 3,95	4,59	+ 0,64	N.	46. 56,80	15. 45,88	92. 2. 43,84	45,31	+ 1,47
16. 6. 20. 22,2	I.	1. 4,76	13. 57. 39,49	39,85	+ 0,36	N.	48. 44,24	15. 31,79	96. 36. 58,87	59,55	+ 0,68
17. 7. 7. 18,6	I.	1. 4,59	14. 48. 40,18	40,48	+ 0,30	N.	50. 1,85	15. 19,30	100. 44. 16,22	16,56	+ 0,34
24. 12. 40. 59,2	II.	1. 3,93	20. 50. 51,53	52,05	+ 0,52	N.	50. 35,53	14. 44,71	107. 16. 20,07	23,19	+ 3,12
Aug. 2. 19. 38. 4,2	II.	1. 10,06	4. 24. 33,98	34,59	+ 0,61	N.	34. 18,40	16. 6,61	73. 19. 11,04	7,41	- 3,63
14. 5. 50. 32,7	I.	1. 5,25	15. 22. 5,21	5,93	+ 0,72	N.	51. 4,49	15. 20,23	103. 4. 54,81	53,91	- 0,90
15. 6. 38. 26,0	I.	1. 5,32	16. 14. 2,93	3,31	+ 0,38	N.	51. 33,99	15. 8,30	106. 9. 44,46	41,77	- 2,69
16. 7. 26. 31,5						N.	51. 45,96	14. 58,89	108. 23. 34,94	37,51	+ 2,57
20. 10. 38. 10,3	I.	1. 4,22	20. 34. 9,42	9,37	- 0,05	S.	50. 59,50	14. 45,18	107. 56. 48,20	61,04	(+ 12,84)
21. 11. 24. 22,1	I.	1. 3,50	21. 24. 25,31	25,30	- 0,01	S.	50. 19,12	14. 46,70	105. 36. 36,24	41,68	+ 5,44
22. 12. 9. 31,2	I.	1. 2,83	22. 13. 38,57	38,77	+ 0,20						
	II.		22. 13. 38,28	38,77	+ 0,49	S.	49. 21,89	14. 49,70	102. 33. 30,47	35,89	+ 5,42

Jan. 26, Feb. 22, and March 28. By calculation the observed Limb was found to be full.

Feb. 26. The correction applied to the N.P.D. of N.L. for defect of illumination = - 0",44.

April 25. The correction applied to the R.A. of 2 L. for defect of illumination = + 0",15.

Aug. 20. The N.P.D. was quite uncertain. See the note to the observation.

Aug. 21. The correction applied to the R.A. of 1 L. for defect of illumination = - 0",03.

Greenwich Mean Solar Time of Transit of Centre.	Limb Observed.	Reduction to Transit of Centre.	R.A. of Centre from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Limb Observed.	Parallax.	Assumed Semidiameter.	Geocentric N.P.D. of Centre from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d. h. m. s.		m. s.	h. m. s.	s.	s.		" "	" "	° ' "	" "	" "
Aug. 23. 12. 53. 47,6	II.	1. 2,35	23. 1. 58,61	59,07	+0,46	S.	48. 4,80	14. 54,09	98. 55. 54,95	57,37	+2,42
Sept. 1. 20. 21. 36,0	II.	1. 12,97	7. 6. 29,60	30,26	+0,66	S.	32. 29,67	16. 24,34	69. 58. 59,81	69,21	(+9,40)
10. 3. 42. 17,4	I.	1. 6,16	14. 59. 55,80	57,38	+1,58	N.	51. 24,65	15. 37,35	101. 37. 24,62	26,41	+1,79
11. 4. 31. 29,9						N.	52. 0,53	15. 22,72	105. 7. 16,49	13,38	-3,11
12. 5. 20. 35,1	I.	1. 6,06	16. 46. 22,72	23,43	+0,71	N.	52. 12,57	15. 10,13	107. 44. 60,09	56,35	-3,74
13. 6. 9. 35,9	I.	1. 5,97	17. 39. 27,13	27,53	+0,40	N.	52. 8,93	15. 0,04	109. 25. 58,09	56,17	-1,92
16. 8. 34. 4,8	I.	1. 4,62	20. 16. 10,46	10,55	+0,09	S.	51. 17,99	14. 46,84	108. 38. 57,37	60,67	+3,35
21. 12. 19. 13,6	II.	1. 2,61	0. 21. 38,94	39,56	+0,62	S.	45. 17,74	15. 8,00	91. 57. 53,15	55,20	+2,05
Oct. 11. 4. 50. 50,1	I.	1. 6,41	18. 10. 52,87	53,62	+0,75	S.	52. 35,38	15. 1,42	110. 10. 37,13	44,21	+7,08
15. 8. 0. 59,1	I.	1. 3,57	21. 37. 19,30	19,63	+0,33	S.	50. 19,88	14. 50,15	105. 4. 50,43	56,69	+6,26
16. 8. 45. 51,5	I.	1. 2,97	22. 26. 15,63	15,97	+0,34	S.	49. 19,71	14. 54,38	101. 48. 48,85	54,19	+5,34
17. 9. 30. 8,4	I.	1. 2,66	23. 14. 36,33	36,80	+0,47	S.	48. 0,08	15. 0,70	97. 58. 46,57	52,56	+5,99
21. 12. 32. 41,5	II.	1. 5,66	2. 33. 25,63	26,86	+1,18	S.	38. 59,04	15. 36,14	80. 12. 19,78	17,03	-2,75
28. 19. 0. 12,6	II.	1. 10,05	9. 29. 36,30	37,29	+0,99	S.	35. 48,04	16. 11,61	74. 20. 22,75	17,66	(-5,09)
Nov. 8. 3. 31. 15,4	I.	1. 6,55	18. 41. 28,57	29,89	+1,32						
11. 5. 54. 44,7	I.	1. 3,94	21. 17. 11,16	11,46	+0,30	S.	50. 44,67	14. 48,95	106. 29. 19,63	25,61	+5,98
12. 6. 39. 46,5	I.	1. 3,14	22. 6. 16,88	16,81	-0,07	S.	49. 47,61	14. 50,94	103. 29. 24,76	32,95	+8,19
13. 7. 23. 50,8	I.	1. 2,64	22. 54. 24,96	25,12	+0,16						
14. 8. 7. 32,6	I.	1. 2,56	23. 42. 10,52	10,75	+0,23	S.	47. 5,86	15. 3,61	95. 47. 33,14	38,37	+5,23
16. 9. 36. 40,1	I.	1. 3,91	1. 19. 25,75	26,41	+0,66	S.	42. 59,16	15. 24,93	86. 44. 32,24	35,20	+2,96
21. 14. 0. 15,5						S.	31. 46,09	16. 12,83	69. 35. 62,87	59,51	-3,36
27. 19. 34. 42,1	II.	1. 6,49	12. 2. 28,15	29,60	+1,45	S.	44. 3,23	15. 58,93	85. 56. 37,25	35,29	-1,96
Dec. 12. 6. 44. 23,3	I.	1. 2,28	0. 9. 11,10	11,23	+0,13	S.	45. 54,16	15. 2,75	93. 34. 0,00	3,27	+3,27
13. 7. 27. 58,5	I.	1. 2,96	0. 56. 50,10	50,49	+0,39	S.	43. 53,40	15. 13,56	89. 4. 10,61	14,23	+3,62
17. 10. 46. 3,6	I.	1. 10,61	4. 31. 13,93	14,97	+1,04	S.	34. 10,93	16. 9,36	72. 31. 3,32	0,48	-2,84
19. 12. 45. 15,0	II.	1. 13,67	6. 38. 38,00	39,29	+1,29						
20. 13. 47. 1,8	II.	1. 13,63	7. 44. 31,52	32,91	+1,39	S.	32. 31,85	16. 30,98	69. 46. 28,01	27,52	-0,49

Aug. 23. The correction applied to the N.P.D. for defect of illumination of the Limb = + 0",46.

Sept. 1. The N.P.D. was quite uncertain. See the note to the observation.

Oct. 28. The N.P.D. was observed under very unfavorable circumstances.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF FLORA.

Greenwich Mean Solar Time of Transit.	R.A. from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Parallax.	Geocentric N.P.D. from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d. h. m. s.	h. m. s.	s.	s.	"	° ' "	" "	" "
Sept. 6. 13. 31. 39,4	0. 35. 8,45	11,07	+2,62	7,83	97. 53. 15,82	56,34	-19,48
10. 13. 13. 38,7	0. 32. 50,95	53,29	+2,34				
11. 13. 9. 4,1	0. 32. 12,19	14,87	+2,68	8,05	98. 36. 47,71	29,72	-17,99
12. 13. 4. 28,5	0. 31. 32,33	35,00	+2,67	8,09	98. 45. 33,63	14,91	-18,72
13. 12. 59. 51,4	0. 30. 51,01	53,81	+2,80	8,13	98. 54. 16,10	57,75	-18,35
14. 12. 55. 12,8	0. 30. 8,27	11,16	+2,89				
18. 12. 36. 28,0	0. 27. 6,57	9,21	+2,64	8,29	99. 37. 13,04	54,29	-18,75
21. 12. 22. 14,1	0. 24. 39,95	42,71	+2,76	8,37	100. 1. 49,34	34,00	-15,34
28. 11. 48. 42,8	0. 18. 39,03	41,85	+2,82	8,46	100. 53. 52,27	35,61	-16,63
Oct. 1. 11. 34. 19,1	0. 16. 2,62	5,31	+2,69	8,46	101. 12. 58,56	42,67	-15,89
5. 11. 15. 12,1	0. 12. 38,70	41,49	+2,79	8,44	101. 34. 46,24	30,90	-15,34
7. 11. 5. 42,8	0. 11. 0,90	3,54	+2,64	8,41	101. 43. 55,35	40,42	-14,93
8. 11. 0. 58,9	0. 10. 12,85	15,91	+3,06	8,39	101. 48. 0,20	47,13	-13,07
11. 10. 46. 55,6	0. 7. 56,84	59,42	+2,58	8,33	101. 58. 28,33	12,96	-15,37
12. 10. 42. 17,2	0. 7. 14,24	16,38	+2,14	8,30	102. 1. 16,41	1,97	-14,44
21. 10. 1. 35,3				7,99	102. 11. 33,43	20,81	-12,62
26. 9. 40. 1,2	23. 59. 59,74	62,03	+2,29	7,77	102. 5. 38,89	28,14	-10,75
Nov. 2. 9. 11. 13,2	23. 58. 42,90	44,98	+2,08				
4. 9. 3. 18,1	23. 58. 39,64	41,78	+2,14	7,31	101. 35. 21,25	12,00	-9,25
8. 8. 47. 53,5	23. 58. 58,76	60,78	+2,02	7,09	101. 14. 22,60	14,28	-8,32
14. 8. 25. 49,0	0. 0. 29,88	31,65	+1,77	6,76	100. 35. 14,01	5,85	-8,16
23. 7. 54. 53,1				6,25	99. 21. 33,02	25,76	-7,26

Sept. 21 and Oct. 8. The transits taken at only two wires.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES

Greenwich Mean Solar Time of Transit.	R.A. from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Parallax.	Geocentric N.P.D. from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d. h. m. s.	h. m. s.	s.	s.	"	° ' "	"	"
Nov. 25. 7. 48. 20,8	0. 6. 17,71	19,47	+ 1,76	6,15	99. 2. 61,95	56,30	- 5,65
28. 7. 38. 45,0	0. 8. 30,00	31,45	+ 1,45				
29. 7. 35. 36,3	0. 9. 17,30	18,78	+ 1,48	6,06	98. 23. 57,37	54,08	- 3,29
Dec. 5. 7. 17. 16,8	0. 14. 34,16	35,93	+ 1,77				
7. 7. 11. 22,8	0. 16. 32,33	33,69	+ 1,36	5,51	96. 58. 34,80	30,66	- 4,14
19. 6. 37. 47,7	0. 30. 10,38	11,72	+ 1,34	4,92	94. 35. 39,53	52,52	(+ 12,99)
20. 6. 35. 7,5	0. 31. 26,29	27,69	+ 1,40	4,88	94. 23. 31,95	22,04	(- 9,91)
23. 6. 27. 13,1	0. 35. 20,28	22,05	+ 1,77	4,74	93. 45. 47,02	22,15	(- 24,87)

Dec. 5. Taken at only one wire. Dec. 19, 20 and 23. The Circle observations on these days were too uncertain to be of any value: the Planet was too faint for bisection in an illumined field.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF VICTORIA.

Sept. 18. 11. 50. 5,6	23. 40. 36,57	36,74	+ 0,17	5,37	76. 38. 1,13	1,74	+ 0,61
21. 11. 35. 52,6	23. 38. 10,91	11,01	+ 0,10	5,40	77. 7. 26,61	26,52	- 0,09
25. 11. 17. 2,6	23. 35. 4,00	4,15	+ 0,15	5,43	77. 48. 58,86	59,39	+ 0,53
28. 11. 3. 3,4	23. 32. 52,17	52,41	+ 0,24	5,44	78. 21. 23,63	24,72	+ 1,09
Oct. 1. 10. 49. 13,8	23. 30. 49,90	50,09	+ 0,19	5,44	78. 54. 28,98	28,48	- 0,50
2. 10. 44. 39,7	23. 30. 11,59	11,74	+ 0,15	5,43	79. 5. 35,46	34,19	- 1,27
5. 10. 31. 5,5	23. 28. 24,84	24,94	+ 0,10	5,42	79. 38. 52,63	51,93	- 0,70
7. 10. 22. 10,1	23. 27. 21,08	21,14	+ 0,06	5,40	80. 0. 57,24	55,92	- 1,32
8. 10. 17. 45,2	23. 26. 51,99	51,62	- 0,37	5,39	80. 11. 51,22	53,10	+ 1,88
11. 10. 4. 38,7	23. 25. 32,99	33,09	+ 0,10	5,35	80. 44. 15,44	15,27	- 0,17
12. 10. 0. 20,8	23. 25. 11,02	10,37	- 0,65	5,34	80. 54. 50,57	50,47	- 0,10
15. 9. 47. 34,0	23. 24. 11,78	12,95	(+ 1,17)	5,29	81. 25. 37,24	50,22	(+ 12,98)
17. 9. 39. 14,5	23. 23. 43,93	43,81	- 0,12	5,25	81. 45. 45,59	46,14	+ 0,55
26. 9. 3. 12,0	23. 23. 4,56	4,30	- 0,26	5,04	83. 6. 19,71	26,20	+ 6,49
29. 8. 51. 43,7	23. 23. 24,03	24,38	+ 0,35	4,95	83. 29. 30,76	34,35	+ 3,59
30. 8. 47. 58,8	23. 23. 35,02	34,72	- 0,30				
Nov. 2. 8. 36. 52,6	23. 24. 16,63	16,49	- 0,14	4,83	83. 57. 13,24	13,04	- 0,20
4. 8. 29. 37,5	23. 24. 53,53	53,20	- 0,33	4,77	84. 9. 32,16	37,04	+ 4,88
5. 8. 26. 2,0	23. 25. 13,94	14,17	+ 0,23	4,74	84. 15. 23,28	27,42	+ 4,14
8. 8. 15. 27,2	23. 26. 27,07	27,27	+ 0,20	4,64	84. 31. 27,69	31,24	+ 3,55
14. 7. 55. 1,6	23. 29. 37,43	37,28	- 0,15	4,44	84. 57. 5,10	7,32	+ 2,22
23. 7. 26. 1,0				4,14	85. 19. 46,27	47,09	+ 0,82
29. 7. 7. 38,8	23. 41. 15,19	14,85	- 0,34	3,94	85. 24. 47,22	66,21	(+ 18,99)

The transits on Oct. 8 and Oct. 26 were taken at two wires, and those on Oct. 15 and Oct. 30 at one wire.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF IRIS.

May 2. 13. 3. 49,2	15. 46. 31,11	31,42	+ 0,31	4,27	113. 37. 11,37	24,84	+ 13,47
11. 12. 19. 49,8	15. 37. 53,47	53,58	+ 0,11	4,33	113. 0. 39,49	44,39	+ 4,90
20. 11. 35. 25,8	15. 28. 51,10	51,32	+ 0,22	4,34	112. 17. 47,89	52,04	+ 4,15
22. 11. 25. 40,5	15. 26. 57,32	52,16	(- 5,16)	4,34	112. 7. 47,52	47,03	- 0,49
29. 10. 51. 22,0	15. 20. 9,11	10,09	+ 0,98	4,30	111. 31. 43,96	46,18	+ 2,22
June 1. 10. 36. 53,5	15. 17. 27,85	28,10	+ 0,25	4,27	111. 16. 19,05	16,76	- 2,29
3. 10. 27. 17,8	15. 15. 43,75	44,52	+ 0,77	4,25	111. 6. 0,65	1,72	+ 1,07
4. 10. 22. 31,9	15. 14. 53,63	54,24	+ 0,61	4,24	111. 0. 60,45	56,65	- 3,80
7. 10. 8. 19,7	15. 12. 28,71	29,74	+ 1,03	4,21	110. 45. 58,83	54,05	- 4,78
8. 10. 3. 38,6	15. 11. 43,46	43,85	+ 0,39	4,19	110. 40. 55,84	58,39	+ 2,55

May 22. Perhaps an error of 5° in the transit observation.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF HEBE.

Greenwich Mean Solar Time of Transit.	R.A. from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Parallax.	Geocentric N.P.D. from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d. h. m. s.	h. m. s.	s.	s.	"	° ' "	"	"
Mar. 27. 12. 48. 23,6	13. 9. 7,04	6,12	- 0,92	2,85	78. 18. 53,20	59,83	+ 6,63
28. 12. 43. 38,3	13. 8. 17,52	16,71	- 0,81	2,84	78. 10. 11,78	20,27	+ 8,49
Apr. 10. 11. 41. 31,0	12. 57. 15,19	14,27	- 0,92	2,72	76. 32. 10,11	7,14	- 2,97
18. 11. 3. 32,3	12. 50. 42,63	41,73	- 0,90	2,64	75. 48. 29,37	27,79	- 1,58
24. 10. 35. 29,7	12. 46. 14,83	14,38	- 0,45	2,57	75. 24. 56,66	87,97	(+ 31,31)
25. 10. 30. 52,6	12. 45. 33,50	32,81	- 0,69	2,56	75. 22. 29,64	27,92	- 1,72
May 2. 9. 58. 59,0	12. 41. 10,56	9,93	- 0,63	2,48	75. 8. 9,27	3,26	- 6,01
3. 9. 53. 30,1	12. 40. 37,44	36,75	- 0,69	2,47	75. 6. 58,31	55,67	- 2,64
11. 9. 19. 20,9	12. 36. 54,92	54,61	- 0,31	2,39	75. 6. 1,24	58,77	- 2,47

The object observed with the Circle April 24 was probably not the Planet.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF PARTHENOPE.

June 1. 10. 22. 11,6	15. 2. 43,60	42,90	- 0,70	5,29	99. 46. 45,17	45,58	+ 0,41
2. 10. 17. 31,3	15. 1. 59,03	58,43	- 0,60	5,27	99. 45. 48,89	49,61	+ 0,72
3. 10. 12. 51,8	15. 1. 15,36	15,21	- 0,15	5,26	99. 45. 4,38	2,31	- 2,07
4. 10. 8. 13,4	15. 0. 32,73	33,29	+ 0,56	5,24	99. 44. 25,80	23,71	- 2,09
7. 9. 54. 28,5	14. 58. 35,28	35,73	+ 0,45	5,18	99. 43. 23,72	21,51	- 2,21
8. 9. 49. 56,2	14. 57. 58,76	59,43	+ 0,67	5,16	99. 43. 17,13	18,80	+ 1,67

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF HYGEIA.

June 24. 13. 18. 36,0	19. 30. 17,73	14,63	- 3,10				
29. 12. 56. 3,1	19. 26. 83,94	18,84	(- 65,10)	4,22	112. 9. 24,77	158,23	+ 133,46
July 1. 12. 45. 33,8	19. 24. 46,04	40,42	- 5,62	4,23	112. 10. 19,60	156,29	+ 136,69
4. 12. 31. 16,3	19. 22. 15,87	9,50	- 6,37	4,24	112. 11. 43,54	181,10	+ 137,56
5. 12. 26. 29,7	19. 21. 25,10	18,62	- 6,48	4,24	112. 12. 17,17	148,30	+ 131,13
8. 12. 12. 9,3	19. 18. 51,98	44,75	- 7,23	4,24	112. 13. 29,05	165,80	+ 136,75
9. 12. 7. 22,9	19. 17. 61,35	53,28	- 8,07	4,24	112. 13. 59,95	189,91	+ 129,96
13. 11. 48. 16,6	19. 14. 38,07	27,91	- 10,16	4,23	112. 15. 12,96	156,36	+ 143,40
15. 11. 38. 43,1	19. 12. 56,19	46,55	- 9,64	4,22	112. 15. 54,66	192,07	+ 137,41
27. 10. 42. 12,6				4,12	112. 17. 25,18	162,23	+ 137,05
Aug. 14. 9. 21. 45,3	18. 53. 52,51	36,83	- 15,68	3,86	112. 12. 53,78	188,85	+ 135,07

The R.A. by observation on June 29 appears to be 1^m too great.
The Transit observation of Aug. 14 was very uncertain.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF EGERIA.

Nov. 23. 9. 31. 34,7	1. 41. 55,44	55,27	- 0,17	3,6	81. 12. 29,5	30,0	+ 0,5
25. 9. 22. 19,0	1. 40. 31,34	31,53	+ 0,19				
28. 9. 8. 38,4				3,5	80. 54. 37,6	48,7	+ 11,1
29. 9. 4. 8,4	1. 38. 3,95	3,93	- 0,02	3,5	80. 50. 43,4	57,8	+ 14,4
Dec. 7. 8. 29. 11,8	1. 34. 34,06	32,95	- 1,11				

The observations were uncertain on account of the faintness of the Planet.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF NEPTUNE.

Greenwich Mean Solar Time of Transit.				R.A. from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Parallax.	Geocentric N.P.D. from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d.	h.	m.	s.	h.	m.	s.	"	° ' "	"	"
Aug.	9.	13.	19.50,5				0,26	99.59.46,76	40,83	-5,93
	20.	12.	35.30,2	22.31.48,59	48,74	+0,15	0,26	100.6.12,30	16,32	+4,02
	21.	12.	31.28,3	22.31.42,54	42,63	+0,09	0,26	100.6.51,52	53,04	+1,52
	22.	12.	27.26,2	22.31.36,38	36,50	+0,12	0,26	100.7.26,64	29,83	+3,19
	23.	12.	23.24,2	22.31.30,27	30,35	+0,08	0,26	100.8.6,28	6,67	+0,39
	26.	12.	12.17,9	22.31.11,76	11,84	+0,08	0,26	100.9.56,73	57,41	+0,68
Sept.	2.	11.	43.3,5	22.30.28,42	28,53	+0,11	0,26	100.14.16,72	15,25	-1,47
	7.	11.	22.53,2	22.29.57,63	57,79	+0,16	0,26	100.17.15,98	16,91	+0,93
	11.	11.	6.45,6	22.29.33,56	33,59	+0,03	0,26	100.19.39,12	39,33	+0,21
	12.	11.	2.43,6	22.29.27,48	27,60	+0,12	0,26	100.20.14,51	14,42	-0,09
	13.	10.	58.42,0	22.29.21,71	21,66	-0,05	0,26	100.20.50,53	47,25	-1,28
	21.	10.	26.28,8	22.28.35,70	35,58	-0,12	0,26	100.25.16,86	17,93	+1,07
	28.	9.	58.19,8	22.27.57,96	58,03	+0,07	0,26	100.28.55,90	55,05	-0,85
Oct.	1.	9.	46.17,2	22.27.42,94	42,91	-0,03	0,26	100.30.22,91	21,88	-1,03
	5.	9.	30.14,4	22.27.23,73	23,81	+0,08	0,26	100.32.10,34	11,09	+0,75
	7.	9.	22.14,1	22.27.15,29	14,74	-0,55	0,26	100.33.2,42	2,73	+0,31
	11.	9.	6.13,0	22.26.57,74	57,68	-0,06	0,26	100.34.40,18	39,50	-0,68
	12.	9.	2.13,3	22.26.53,94	53,64	-0,30				
	15.	8.	50.13,7	22.26.42,06	42,11	+0,05	0,26	100.36.7,15	7,12	-0,03
	18.	8.	38.15,6	22.26.31,64	31,47	-0,17	0,26	100.37.8,17	6,50	-1,67
	21.	8.	26.17,8	22.26.21,50	21,77	+0,27	0,26	100.38.0,52	0,33	-0,19
	26.	8.	6.24,5	22.26.7,70	7,80	+0,10	0,26	100.39.16,90	16,98	+0,08
	28.	7.	58.28,1	22.26.3,12	3,00	-0,12	0,26	100.39.43,24	42,93	-0,31
	29.	7.	54.29,9	22.26.0,80	0,77	-0,03	0,26	100.39.55,74	54,88	-0,86
	31.	7.	46.34,1				0,26	100.40.15,32	16,71	+1,39
Nov.	1.	7.	42.36,1	22.25.54,69	54,80	+0,11	0,26	100.40.25,98	26,57	+0,59
	2.	7.	38.38,5	22.25.53,05	53,05	0,00	0,26	100.40.35,79	35,70	-0,09
	4.	7.	30.43,7	22.25.50,03	49,91	-0,12	0,26	100.40.52,08	51,80	-0,28
	5.	7.	26.46,3	22.25.48,50	48,53	+0,03	0,26	100.40.59,87	58,76	-1,11
	8.	7.	14.55,3	22.25.45,21	45,14	-0,07	0,26	100.41.14,96	15,19	+0,23
	11.	7.	3.5,2	22.25.42,86	42,90	+0,04	0,26	100.41.24,78	25,01	+0,23
	14.	6.	51.16,6	22.25.41,99	41,80	-0,19	0,26	100.41.28,38	28,15	-0,23
	19.	6.	31.37,6	22.25.42,53	42,56	+0,03	0,26	100.41.18,99	18,34	-0,65
	25.	6.	8.6,9				0,25	100.40.41,72	41,74	+0,02
	26.	6.	4.12,7	22.25.49,01	49,06	+0,05	0,25	100.40.32,67	33,02	+0,35
	27.	6.	0.18,2	22.25.50,42	50,51	+0,09	0,25	100.40.22,00	23,54	+1,54
	28.	5.	56.24,1	22.25.52,26	52,09	-0,17	0,25	100.40.13,26	13,31	+0,05
	29.	5.	52.29,8	22.25.53,84	53,80	-0,04	0,25	100.40.1,71	2,33	+0,62
Dec.	6.	5.	25.13,9	22.26.9,38	9,37	-0,01	0,25	100.38.23,58	24,71	+1,13
	12.	5.	1.56,8	22.26.27,78	27,67	-0,11				
	17.	4.	42.35,7				0,25	100.34.39,84	39,89	+0,05

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF PETERSEN'S THIRD COMET.

June	3.12.22.46,6	17.11.31,55	37,66	(+6,11)	3,13	16.22.29,31	30,05	+0,74
	7.11.36.58,9	16.41.22,48	22,84	+0,36	3,21	17.24.50,00	47,62	-2,38
	8.11.25.29,8	16.33.48,12	46,84	-1,28	3,21	17.46.7,83	1,84	-5,99

The Transit observation on June 3 was taken very doubtfully at only two wires.

DETERMINATION OF THE POSITION OF THE ECLIPTIC, AND OF THE MEAN ERROR OF
THE ASSUMED RIGHT ASCENSIONS OF THE FUNDAMENTAL STARS, FROM THE
TRANSIT AND CIRCLE OBSERVATIONS OF THE SUN IN THE YEAR 1850.

The total number of Circle Observations of the Sun, in which both Limbs were observed, was 111, excluding that of Nov. 15, and the number of observations of single Limbs, excluding that of Aug. 20, was 15. The observations of single Limbs are taken into account, giving half-weight to each. The whole are divided into four groups containing 29½, 30, 29 and 30 observations. Each of these has been subdivided into three groups, as exhibited in the subjoined Table. This Table contains also the limiting days and the mean day of each group, the mean value (α) of the Tabular Errors in North Polar Distance, derived from the columns in pages 280—282, and the Sun's Longitude (λ) and North Polar Distance (Δ) at the mean noon of the mean day.

Limiting Days of Observation of each group.	Mean Day.	Mean of the Tabular Errors in N.P.D.	Number of Observations.	Sun's Longitude at mean Noon of mean Day.	Sun's N.P.D. at mean Noon of mean Day.
		"		° ' "	° ' "
Jan. 5.....Mar. 1 Mar. 5.....Mar. 28 Mar. 30.....May 13	Feb. 12 Mar. 17 Apr. 23	- 0,05 + 0,17 + 0,04	9½ 10 10	323.28.47 356.33.49 32.57.9	103.42.10 91.22.2 77.29.42
May 17.....June 3 June 4.....June 25 June 26.....July 17	May 27 June 15 July 7	+ 0,18 - 0,28 + 0,01	10 10 10	65.46.52 83.57.29 104.56.10	68.42.50 66.40.52 67.21.50
July 22.....Aug. 12 Aug. 13.....Aug. 29 Aug. 30.....Sept. 30	Aug. 2 Aug. 22 Sept. 13	- 0,85 - 0,37 - 1,81	10 9 10	129.45.52 148.58.50 170.18.32	72.10.59 78.9.46 86.9.27
Oct. 5.....Oct. 17 Oct. 18.....Nov. 25 Nov. 26.....Dec. 23	Oct. 11 Nov. 5 Dec. 10	- 0,29 - 0,33 + 0,54	9 10 11	197.49.8 222.45.0 258.8.32	96.59.48 105.40.35 112.55.40

Formula of Calculation.

$$\alpha + m \cos \lambda \operatorname{cosec} \Delta + n \sin \lambda \operatorname{cosec} \Delta + p = 0.$$

The following equations were deduced from this formula by means of the data in the Table above. Each equation is multiplied by the respective number of observations, with the exception of the first equation, to which the weight 9 is given, to make the weights the same in the alternate Quarters.

$$\begin{array}{lcl}
 \text{First Quarter} & \left\{ \begin{array}{l} \text{Feb. 12.....} - 0,48 + m \times 7,4447 - n \times 5,5129 + 9p = 0. \\ \text{Mar. 17.....} + 1,70 + m \times 9,9849 - n \times 0,5996 + 10p = 0. \\ \text{Apr. 23.....} + 0,40 + m \times 8,5951 + n \times 5,5716 + 10p = 0. \end{array} \right. \\
 \text{Second Quarter} & \left\{ \begin{array}{l} \text{May 27.....} + 1,80 + m \times 4,4026 + n \times 9,7876 + 10p = 0. \\ \text{June 15.....} - 2,80 + m \times 1,1462 + n \times 10,8290 + 10p = 0. \\ \text{July 7.....} + 0,10 - m \times 2,7925 + n \times 10,4686 + 10p = 0. \end{array} \right. \\
 \text{Third Quarter} & \left\{ \begin{array}{l} \text{Aug. 2.....} - 8,50 - m \times 6,7186 + n \times 8,0740 + 10p = 0. \\ \text{Aug. 22.....} - 3,33 - m \times 7,8805 + n \times 4,7387 + 9p = 0. \\ \text{Sept. 13.....} - 18,10 - m \times 9,8795 + n \times 1,6872 + 10p = 0. \end{array} \right. \\
 \text{Fourth Quarter} & \left\{ \begin{array}{l} \text{Oct. 11.....} - 2,61 - m \times 8,6325 - n \times 2,7747 + 9p = 0. \\ \text{Nov. 5.....} - 3,30 - m \times 7,6269 - n \times 7,0503 + 10p = 0. \\ \text{Dec. 10.....} + 5,94 - m \times 2,4542 - n \times 11,6887 + 11p = 0. \end{array} \right.
 \end{array}$$

From the above, new equations are formed by adding and subtracting as indicated below :

$$\begin{array}{l}
 \text{First Quarter} + \text{Second} + \text{Third} + \text{Fourth} \\
 - 29'',18 - m \times 14,4112 + n \times 23,5305 + 118p = 0. \\
 \text{First Quarter} + \text{Second} - \text{Third} - \text{Fourth} \\
 + 30'',62 + m \times 71,9732 + n \times 37,5581 = 0. \\
 \text{First Quarter} - \text{Second} - \text{Third} + \text{Fourth} \\
 + 32'',48 + m \times 29,0334 - n \times 67,6397 = 0.
 \end{array}$$

The solution of these equations gives,

$$m = - 0'',552, \quad n = + 0'',243, \quad p = + 0'',131.$$

Let $\delta\lambda$ = the mean excess for the year of the Tabular Longitude of the Sun above the true Longitude.

δR = the mean excess for the year of the Tabular R.A. of the Sun above the true R.A.

$\delta\Delta$ = the mean excess for the year of the Tabular N.P.D. of the Sun above the true N.P.D.

δI = the mean excess of the Obliquity (I) assumed in the Tables above the true Obliquity.

$A = - 0^s,140$, which is the mean of 130 apparent excesses of the Tabular R.A. in pages 280—282, half-weight being given to observations of single limbs and to the observation of both Limbs taken on Aug. 24 at only five wires.

$D = - 0'',026$, which is the mean of 126 apparent excesses of the Tabular N.P.D. in pages 280—282, half-weight being given to observations of single limbs.

q = the mean excess of the assumed R.A. of the fundamental stars above the true R.A.

p = the mean excess within the Tropics of the N.P.D. determined by the Circle observations and calculations of 1850 above the true N.P.D.

Then, $\delta\lambda = m \operatorname{cosec} I = - 0'',552 \times \operatorname{cosec} 23^\circ.27',5 = - 1'',387$.

$$\delta R = \frac{\delta\lambda}{15} \times \frac{\sum \cos I \operatorname{cosec}^2 \Delta}{2\pi} = \frac{\delta\lambda}{15} \text{ nearly} = - 0^s,092.$$

$$\delta\Delta = (\text{Tabular N.P.D.} - \text{Observed N.P.D.}) + (\text{Observed N.P.D.} - \text{True N.P.D.})$$

$$= D + p = - 0'',026 + 0'',131 = + 0'',105.$$

$$\delta I = n \sec I = + 0'',243 \times \sec 23^\circ.27',5 = + 0'',265.$$

$$q = (\text{Tabular R.A.} - \text{True R.A.}) - (\text{Tabular R.A.} - \text{Observed R.A.})$$

$$= \delta R - A = - 0^s,092 + 0^s,140 = + 0^s,048.$$

Hence the assumed R.A. of the fundamental stars are too great by the mean quantity $0^s,048$.

OCCULTATIONS
OF
FIXED STARS AND THE PLANET JUPITER
BY THE MOON,
WITH
THE EQUATIONS GIVEN BY THE CALCULATION
OF THE OCCULTATIONS.

1850.

COMPARISONS OF CHRONOMETERS WITH THE TRANSIT CLOCK, USED IN THE
CALCULATION OF THE FOLLOWING OCCULTATIONS.

* * THE letter *H* is an abbreviation for Hardy, the Transit Clock. *U* and *X* are Sidereal Chronometers, and *W* is a Solar Chronometer, each beating half-seconds.

Day of Comparison.	Clock.	Clock Time.	Chron.	Chronometer Time.	Day of Comparison.	Clock.	Clock Time.	Chron.	Chronometer Time.
1850.		<i>h. m. s.</i>		<i>h. m. s.</i>	1850.		<i>h. m. s.</i>		<i>h. m. s.</i>
Jan. 23	H.	1.21.35,0	U.	1.21.56,0	July 21	H.	19.13.8,0	X.	19.17.18,4
	H.	2.22.24,0	U.	2.22.45,0	July 24	H.	21.22.17,0	X.	21.22.35,0
	H.	6.4.11,0	U.	6.4.32,0	Aug. 2	H.	5.25.47,0	X.	5.26.37,5
	H.	6.5.44,0	U.	6.6.5,0	Aug. 14	H.	18.5.17,0	U.	18.5.18,3
Feb. 16	H.	4.56.24,0	W.	7.10.50,5		H.	18.7.15,0	X.	18.8.38,3
Feb. 18	H.	6.5.4,0	W.	8.11.20,5		H.	18.8.5,0	X.	18.9.28,2
Mar. 23	H.	12.47.34,0	U.	12.47.55,0		H.	19.13.23,0	U.	19.13.24,4
Apr. 15	H.	10.35.30,0	U.	10.36.14,9		H.	19.16.14,0	X.	19.17.37,5
	H.	10.37.19,0	X.	10.36.7,3	Sept. 12	H.	20.37.40,0	U.	20.38.7,5
May 19	H.	10.33.25,0	X.	10.35.28,8		H.	20.37.58,0	X.	20.38.40,3
	H.	10.29.22,1	U.	10.29.35,0		H.	20.39.13,0	X.	20.39.55,2
	H.	11.37.35,2	U.	11.37.48,0	Nov. 8	H.	21.39.43,0	X.	21.40.44,6
May 28	H.	16.19.17,0	U.	16.19.20,5	Nov. 21	H.	2.11.45,0	X.	2.13.7,0
	H.	16.20.22,0	X.	16.22.51,5		H.	2.13.48,0	U.	2.14.47,4
	H.	17.40.13,0	X.	17.42.42,5		H.	5.19.59,0	U.	5.20.58,8
	H.	17.41.33,0	U.	17.41.36,4		H.	5.22.15,0	X.	5.23.36,5
July 21	H.	18.21.56,0	X.	18.26.6,5		H.	6.33.49,0	U.	6.34.49,0
	H.	18.25.46,0	W.	10.27.16,5		H.	6.39.12,0	X.	6.40.33,5
	H.	19.24.9,0	W.	11.25.30,0					

The fourth comparison of U with H on Jan. 23 is the result of the following comparisons, 6.5.44,0 H = 9.54.37,0 W, 10.0.37,0 W = 6.12.6,0 U.

Day of Observation 1850.	Phenomenon.	Moon's Limb.	Chronom.	Instrument.	Time by Chronometer.			Sidereal Time.			Greenwich Mean Solar Time.			Observer.
					h.	m.	s.	h.	m.	s.	h.	m.	s.	
Jan. 23	(a) Disappearance of γ Tauri	Dark	U.	5-feet Equatorial	1.	17.	25,3	1.	17.	19,74	5.	6.	15,07	B.
...	(b) Reappearance of γ Tauri	Bright	U.	5-feet Equatorial	2.	18.	52,8	2.	18.	47,30	6.	7.	32,55	B.
...	(c) Disappearance of θ^1 Tauri	Dark	U.	Northumb. Equat.	5.	53.	3,1	5.	52.	57,80	9.	41.	7,96	B.
...	(c) Disappearance of θ^2 Tauri	Dark	U.	5-feet Equatorial	9.	41.	37,7	5.	52.	58,46	9.	41.	8,62	C.
...	(c) Disappearance of θ^2 Tauri	Dark	W.	Northumb. Equat.	5.	59.	31,3	5.	59.	26,00	9.	47.	35,10	B.
Feb. 16	(d) Disappearance of Bessel ι . 330	Dark	W.	5-feet Equatorial	9.	48.	4,3	5.	59.	26,12	9.	47.	35,22	C.
18	(d) Disappearance of star (α)	Dark	W.	Northumb. Equat.	7.	5.	2,2	4.	51.	16,21	7.	5.	14,68	C.
Mar. 23	(e) Reappearance of ν^1 Cancri	Bright	U.	Northumb. Equat.	8.	3.	18,0	5.	57.	43,73	8.	3.	39,49	C.
Apr. 15	(f) Reappearance of Aldebaran	Bright	U.	Northumb. Equat.	12.	38.	18,0	12.	38.	7,68	12.	33.	12,94	B.
May 19	(g) Disappearance of Jupiter	Bright	U.	Northumb. Equat.	10.	33.	44,6	10.	33.	28,27	8.	58.	28,09	B.
...	(g) Disappearance of Jupiter	Dark	X.	5-feet Equatorial	10.	31.	48,8	10.	33.	29,07	8.	58.	28,89	T.
...	(g) Disappearance of Jupiter	Dark	X.	Northumb. Equat.	10.	20.	40,0	10.	33.	29,07	8.	58.	28,89	T.
...	(g) Disappearance of Jupiter	Dark	U.	5-feet Equatorial	10.	19.	4,5	10.	19.	39,90	6.	31.	1,11	B.
...	(h) Reappearance of Jupiter	Bright	U.	5-feet Equatorial	10.	19.	4,5	10.	19.	55,25				T.
...	(h) Reappearance of Jupiter	Bright	U.	5-feet Equatorial	10.	20.	31,0	10.	21.	21,78	6.	32.	42,71	T.
...	(h) Reappearance of Jupiter	Bright	U.	5-feet Equatorial	11.	24.	17,0	11.	25.	7,92	7.	36.	18,40	T.
...	(h) Reappearance of Jupiter	Bright	U.	5-feet Equatorial	11.	25.	54,0	11.	26.	44,92	7.	37.	55,14	T.
23	(i) Disappearance of ξ^1 Sagittarii	Bright	U.	5-feet Equatorial	16.	15.	11,0	16.	16.	21,67				T.
...	(i) Disappearance of ξ^1 Sagittarii	Bright	X.	Northumb. Equat.	16.	17.	58,2	16.	16.	42,88	11.	51.	42,42	B.
...	(k) Reappearance of ξ^1 Sagittarii	Dark	X.	Northumb. Equat.	17.	37.	57,8	17.	36.	42,54	13.	11.	28,97	B.
...	(k) Reappearance of ξ^1 Sagittarii	Dark	U.	5-feet Equatorial	17.	35.	32,0	17.	36.	42,83	13.	11.	29,26	T.
July 21	(l) Disappearance of 21 Sagittarii	Dark	X.	5-feet Equatorial	18.	23.	0,3	18.	20.	6,31	10.	22.	26,42	B.
...	(m) Reappearance of 21 Sagittarii	Bright	W.	Northumb. Equat.	10.	20.	21,8	18.	20.	6,69	10.	22.	26,80	C.
...	(m) Reappearance of 21 Sagittarii	Bright	W.	Northumb. Equat.	11.	10.	31,0	19.	10.	24,09				C.
...	(m) Reappearance of 21 Sagittarii	Bright	X.	5-feet Equatorial	19.	13.	20,8	19.	10.	26,95	11.	12.	38,82	B.
24	(n) Disappearance of 21 Capricorni	Bright	X.	Northumb. Equat.	21.	14.	5,8	21.	14.	8,54	13.	4.	12,42	B.
Aug. 2	(o) Disappearance of Aldebaran	Bright	X.	Northumb. Equat.	5.	20.	38,8	5.	20.	21,53	20.	33.	42,56	B.
...	(p) Disappearance of γ Libræ	Dark	U.	5-feet Equatorial	17.	59.	9,0	17.	59.	55,71	8.	27.	57,31	T.
...	(q) Reappearance of γ Libræ	Bright	X.	Northumb. Equat.	18.	0.	31,6	17.	59.	56,38	8.	27.	57,98	B.
...	(q) Reappearance of γ Libræ	Bright	X.	Northumb. Equat.	19.	11.	56,9	19.	11.	21,49	9.	39.	11,39	B.
...	(q) Reappearance of γ Libræ	Bright	U.	5-feet Equatorial	19.	10.	44,0	19.	11.	30,67				T.
Sept. 12	(r) Disappearance of 29 Ophiuchi	Dark	U.	5-feet Equatorial	20.	32.	34,5	20.	32.	30,59				B.
...	(r) Disappearance of 29 Ophiuchi	Dark	X.	Northumb. Equat.	20.	32.	53,0	20.	32.	34,35	9.	6.	9,64	C.
Nov. 8	(s) Reappearance of 33 Sagittarii	Bright	X.	Northumb. Equat.	21.	33.	37,5	21.	33.	10,76	6.	22.	29,42	B.
...	(t) Reappearance of χ^8 Orionis	Dark	U.	5-feet Equatorial	2.	9.	24,6	2.	9.	18,08	10.	6.	44,68	T.
...	(u) Disappearance of 68 Orionis	Bright	X.	Northumb. Equat.	2.	9.	49,0	2.	9.	19,87				B.
...	(v) Reappearance of star (β)	Dark	U.	5-feet Equatorial	5.	18.	32,0	5.	18.	25,22				T.
...	(v) Reappearance of star (β)	Dark	X.	Northumb. Equat.	5.	18.	56,9	5.	18.	28,41	13.	15.	24,01	B.
...	(w) Reappearance of 68 Orionis	Dark	X.	Northumb. Equat.	6.	29.	54,8	6.	29.	26,37	14.	26.	10,34	B.
...	(w) Reappearance of 68 Orionis	Dark	U.	5-feet Equatorial	6.	31.	0,0	6.	31.	31,57				B.
...	(w) Reappearance of 68 Orionis	Dark	U.	5-feet Equatorial	6.	31.	40,0	6.	31.	33,08	14.	28.	16,71	T.

(a) 'Beautifully exact: the star bright.' (b) Seen at the instant of reappearance. The Moon was extremely steady, and the Limb and star were sharply defined. (c) 'Very exact.' (B). 'Good.' (C). (d) The times were considered exact. These occultations are not in the Nautical Almanac. The angle from the North Point was estimated at 100° in the observation of Feb. 16, and at 60° in that of Feb. 18. The star (α) was not found in any Catalogue. Its mean place 1850,0, as determined by Equatorial observations on Sept. 22, 1856 is as follows: R.A. = $3^h.3^m.50^s.14$, N.P.D. = $78^\circ.52'.40''.90$. (e) 'Pretty good.' The instrument, not being noted, is put down conjecturally. (f) 'Very exact. The circumstances favorable: clouds had passed off.' (B). T expected the star to appear higher, but considered the observation good. (g) Jupiter was very faint from clouds, especially as seen with the 5-feet Telescope. B noticed that at the time of first contact the Limb of Jupiter was elongated towards the Moon's Limb. The time noted by T was 'when a small dark projection was seen on the edge of the Planet,' and is probably too late for first contact. 'Total immersion not very good: cloudy at the time.' (T). The Planet appeared to B to be quite obscured by cloud before the total immersion. (h) Both times were thought to be nearly exact. No distortion of the Planet was noticed, but it appeared to hang a little on the Moon's Limb, and the recorded time of total emersion is that of final separation. (i) The Moon waving and low, but B's observation was not doubtful. T kept the star in view, although extremely faint, till it appeared to touch the Moon's Limb, and thought the time 'pretty accurate.' Possibly an error of $20''$ in counting. (j) Both observations quite satisfactory. (k) 'Good, I think, and circumstances favorable.' (B). 'The disappearance was nearly at $22^h.0$; I feel doubtful whether it was $0^h.2$ before or after, but I think it was before.' (C). (l) 'Seen, I think, at the very instant of emergence.' (B). The star was first seen by C at $11.10.43.0$ W when it was a few seconds distant from the Limb, and at $11.10.55.0$ W it was judged to be at *twice* the distance. The time of reappearance is hence inferred, with some degree of uncertainty, to be $11.10.31.0$ W. (m) The Moon's Limb waving, but the observation not doubtful. (n) 'Beautifully exact. I saw the star projected on the Moon's bright Limb full *five seconds* before it disappeared. Magnifying power, 215.' (B). (o) 'Extremely exact. The sky clear, and the star blazing a little.' (B). 'Good.' (T). (p) 'Very exact: I saw the star coming out, and fancied I saw a projection.' (B). 'I believe good, but the star excessively faint: it had not separated from the Limb at the noted time.' (T). (q) 'Exactly at the second: T counted. The Moon was very low, but the observation not doubtful. The star appeared to remain several seconds on the Limb, but the power used being not higher than 35, it was uncertain whether it had actually come in contact.' (C). 'The eye-glass obscured by mist and the star very faint in consequence.' (B). Probably the time by B does not apply to the disappearance by the occultation. (r) 'Dense clouds covering the Moon: the star when first seen was separated from the Limb.' (B). The calculation of this occultation is not added. (s) 'I believe quite exact.' (T). 'I did not see the star at its first appearance.' (B). (t) 'Pretty good: the star very faint.' (T). B's observation with the Northumberland Telescope was quite satisfactory. (u) The mean place 1850,0 of this star, as inferred from Equatorial observations taken Sept. 23, 1856 is, R.A. = $6^h.3^m.4^s.69$, N.P.D. = $70^\circ.12'.2''.07$. (v) T's observation was considered 'very exact.' B was perplexed by the observation of the appearance of the small star (β).

Disappearance of γ Tauri, Jan. 23, $5^h.6^m.15^s.07 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$19.19.56.10 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$62.10.41.25 + 0.6075 \times (t + \tau) + x$
Moon's Geocentric N.P.D.	$74.17.20.15 + 0.1200 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.36.24 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$16.14.54 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$62.49.2.70 + e$
Star's N.P.D.	$74.44.29.10 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc	$62.36.44.97 + \delta R$
Moon's apparent N.P.D.	$74.55.39.42 + \delta \lambda$
Moon's apparent Semidiameter	$16.25.50 + \delta S$
Apparent Distance of Star from Moon's centre	$16.17.92 + \delta D$

$$\delta R = +0.4900t + 0.6121\tau + 1.0081x - 0.0022y + 1.5765m + 0.0098v$$

$$\delta \lambda = +0.0937t + 0.1226\tau + 0.0019x + 1.0112y + 2.3266m - 0.0130v$$

$$\delta S = +0.0005t + 0.9855n$$

$$\delta D = -0.7028\delta R + 0.7028e + 0.6858\delta \lambda - 0.6851f.$$

Final Equation:

$$+7''.58 = -0.7072x + 0.6950y + 0.7028e - 0.6851f - 0.2806t - 0.3461\tau - 0.0158v + 0.4877m - 0.9855n.$$

Reappearance of γ Tauri, Jan. 23, $6^h.7^m.32^s.55 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$34.41.49.50 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$62.47.57.75 + 0.6089 \times (t + \tau) + x$
Moon's Geocentric N.P.D.	$74.10.1.55 + 0.1185 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.38.39 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$16.15.15 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$62.49.2.70 + e$
Star's N.P.D.	$74.44.29.10 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc	$63.6.4.05 + \delta R$
Moon's apparent N.P.D.	$74.46.49.66 + \delta \lambda$
Moon's apparent Semidiameter	$16.27.69 + \delta S$
Apparent Distance of Star from Moon's centre	$16.35.41 + \delta D$

$$\delta R = +0.4669t + 0.6147\tau + 1.0098x - 0.0015y + 1.0970m + 0.0068v$$

$$\delta \lambda = +0.1005t + 0.1208\tau + 0.0014x + 1.0128y + 2.2372m - 0.0136v$$

$$\delta S = +0.0004t + 0.9877n$$

$$\delta D = +0.9552\delta R - 0.9552e + 0.1419\delta \lambda - 0.1406f.$$

Final Equation:

$$-7''.72 = +0.9647x + 0.1422y - 0.9552e - 0.1406f + 0.4598t + 0.6043\tau + 0.0046v + 1.3651m - 0.9877n.$$

Disappearance of θ^1 Tauri, Jan. 23, $9^h.41^m.8^s.29 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$88.14.31,95 + 15,0411 \times t$
Moon's Geocentric Right Ascension in arc	$64.58.34,05 + 0,6140 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$73.45.19,62 + 0,1128 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.45,48 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$16.17,07 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$65.0.14,70 + e''$
Star's N.P.D.	$74.22.39,40 + f$
Geocentric Colatitude of the Observatory	$37.58.20,37 + \nu$
Moon's apparent Right Ascension in arc.....	$64.43.19,02 + \delta R$
Moon's apparent N.P.D.	$74.21.30,89 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.30,11 + \delta S$
Apparent Distance of Star from Moon's centre .	$16.20,51 + \delta D$

$$\delta R = + 0,4655t + 0,6205\tau + 1,0103x + 0,0013y - 0,9245m - 0,0057\nu$$

$$\delta \lambda = + 0,1308t + 0,1133\tau - 0,0012x + 1,0133y + 2,2007m - 0,0138\nu$$

$$\delta S = - 0,0003t + 0,9901n$$

$$\delta D = - 0,9607\delta R + 0,9607e - 0,0692\delta \lambda + 0,0705f.$$

Final Equation:

$$+ 9'',60 = - 0,9705x - 0,0714y + 0,9607e + 0,0705f - 0,4560t - 0,6039\tau + 0,0065\nu + 0,7358m - 0,9901n.$$

Disappearance of θ^2 Tauri, Jan. 23, $9^h.47^m.35^s.16 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$89.51.30,90 + 15,0411 \times t$
Moon's Geocentric Right Ascension in arc.....	$65.2.31,65 + 0,6141 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$73.44.36,03 + 0,1126 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.45,69 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter.....	$16.17,13 \times (1 + 0,001 n)$
Star's Right Ascension in arc.....	$65.1.39,00 + e''$
Star's N.P.D.	$74.28.8,10 + f$
Geocentric Colatitude of the Observatory	$37.58.20,37 + \nu$
Moon's apparent Right Ascension in arc.....	$64.46.41,72 + \delta R$
Moon's apparent N.P.D.	$74.20.3,35 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.29,77 + \delta S$
Apparent Distance of Star from Moon's centre .	$16.30,90 + \delta D$

$$\delta R = + 0,4707t - 0,6204\tau + 1,0100x + 0,0014y - 0,9594m - 0,0060\nu$$

$$\delta \lambda = + 0,1315t + 0,1133\tau - 0,0012x + 1,0129y + 2,1553m - 0,0135\nu$$

$$\delta S = - 0,0003t + 0,9898n$$

$$\delta D = - 0,8401\delta R + 0,8401e - 0,4887\delta \lambda + 0,4897f.$$

Final Equation:

$$- 1'',13 = - 0,8478x - 0,4961y + 0,8401e + 0,4897f - 0,4594t - 0,5765\tau + 0,0116\nu - 0,2473m - 0,9898n.$$

Disappearance of Bessel I. 330, Feb. 16, $7^h.5^m.14^s.68 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$72.49.3.15 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$20.5.6.15 + 0.5131 \times (t + \tau) + x$
Moon's Geocentric N.P.D.	$86.16.25.86 - 0.1771 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$56.38.96 \times [9.9990916] \times (1 + 0.001m)$
Moon's Geocentric Semidiameter	$15.26.18 \times (1 + 0.001n)$
Star's Right Ascension in arc.....	$19.52.45.15 + e$
Star's N.P.D.	$86.58.30.23 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc.....	$19.37.11.64 + \delta R$
Moon's apparent N.P.D.	$86.59.50.12 + \delta \lambda$
Moon's apparent Semidiameter.....	$15.32.56 + \delta S$
Apparent Distance of Star from Moon's centre	$15.35.64 + \delta D$

$$\delta R = +0.4241t + 0.5161\tau + 1.0061x + 0.0005y - 1.6848m - 0.0105v$$

$$\delta \lambda = -0.1721t - 0.1785\tau - 0.0004x + 1.0068y + 2.6224m - 0.0106v$$

$$\delta S = -0.0006t + 0.9326n$$

$$\delta D = -0.9950\delta R + 0.9950e + 0.0855\delta \lambda - 0.0853f.$$

Final Equation :

$$-3''.08 = -1.0011x + 0.0856y + 0.9950e - 0.0853f - 0.4361t - 0.5287\tau + 0.0095v + 1.9005m - 0.9326n.$$

Disappearance of the Star (α), Feb. 18, $8^h.3^m.39^s.49 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$89.25.55.95 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$46.7.59.70 + 0.5550 \times (t + \tau) + x$
Moon's Geocentric N.P.D.	$78.5.56.90 - 0.1503 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$57.59.86 \times [9.9990916] \times (1 + 0.001m)$
Moon's Geocentric Semidiameter	$15.48.22 \times (1 + 0.001n)$
Star's Right Ascension in arc.....	$45.57.26.40 + e$
Star's N.P.D.	$78.52.50.11 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc.....	$45.42.50.68 + \delta R$
Moon's apparent N.P.D.	$78.45.39.80 + \delta \lambda$
Moon's apparent Semidiameter.....	$15.57.82 + \delta S$
Apparent Distance of Star from Moon's centre	$16.0.85 + \delta D$

$$\delta R = +0.4429t + 0.5591\tau + 1.0077x + 0.0016y - 1.5207m - 0.0095v$$

$$\delta \lambda = -0.1314t - 0.1526\tau - 0.0014x + 1.0100y + 2.4080m - 0.0122v$$

$$\delta S = -0.0005t + 0.9578n$$

$$\delta D = -0.8772\delta R + 0.8772e - 0.4475\delta \lambda + 0.4482f.$$

Final Equation :

$$-3''.03 = -0.8833x - 0.4533y + 0.8772e + 0.4482f - 0.3292t - 0.4221\tau + 0.0137v + 0.2564m - 0.9578n.$$

Reappearance of α^1 Cancri, Mar. 23, $12^h.33^m.12^s.94 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$189.31.55.20 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$133.1.27.75 + 0.6134 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$73.33.2.47 + 0.1111 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.40.23 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$16.15.61 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$132.13.21.00 + e''$
Star's N.P.D.	$74.6.26.60 + f$
Geocentric Colatitude of the Observatory.....	$37.58.20.37 + \nu$
Moon's apparent Right Ascension in arc	$132.29.23.12 + \delta R$
Moon's apparent N.P.D.	$74.12.44.88 + \delta \lambda$
Moon's apparent Semidiameter	$16.24.87 + \delta S$
Apparent Distance of Star from Moon's centre .	$16.39.90 + \delta D$

$$\delta R = +0.5261t + 0.6174\tau + 1.0061x + 0.0028y - 1.9349m - 0.0120\nu$$

$$\delta \lambda = +0.1476t + 0.1106\tau - 0.0025x + 1.0094y + 2.4073m - 0.0124\nu$$

$$\delta S = -0.0006t + 0.9349n$$

$$\delta D = +0.8905\delta R - 0.8905e + 0.3789\delta \lambda - 0.3777f.$$

Final Equation:

$$-15''.03 = +0.8950x + 0.3849y - 0.8905e - 0.3777f + 0.5250t + 0.5917\tau - 0.0154\nu - 0.8109m - 0.9849n.$$

Reappearance of Aldebaran, Apr. 15, $8^h.58^m.28^s.09 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$158.22.4.05 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$67.44.7.35 + 0.6051 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$73.0.56.87 - 0.1042 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$58.57.07 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$16.3.89 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$66.49.33.90 + e''$
Star's N.P.D.	$73.47.58.30 + f$
Geocentric Colatitude of the Observatory.....	$37.58.20.37 + \nu$
Moon's apparent Right Ascension in arc	$67.6.17.18 + \delta R$
Moon's apparent N.P.D.	$73.45.38.31 + \delta \lambda$
Moon's apparent Semidiameter	$16.7.46 + \delta S$
Apparent Distance of Star from Moon's centre .	$16.13.46 + \delta D$

$$\delta R = +0.6084t + 0.6046\tau + 0.9998x + 0.0034y - 2.2697m - 0.0141\nu$$

$$\delta \lambda = -0.0619t - 0.1063\tau - 0.0030x + 1.0036y + 2.6947m - 0.0101\nu$$

$$\delta S = -0.0007t + 0.9675n$$

$$\delta D = +0.9502\delta R - 0.9502e - 0.1431\delta \lambda + 0.1445f.$$

Final Equation:

$$-6''.00 = +0.9504x - 0.1405y - 0.9502e + 0.1445f + 0.5877t + 0.5898\tau - 0.0120\nu - 2.5424m - 0.9675n.$$

Disappearance of Jupiter, first contact, May 19, 6^h.31^m.1^s.11+ t + τ ^s Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	154.54.58,50 + 15,0411 $\times t$
Moon's Geocentric Right Ascension in arc	164.48.50,10 + 0,5514 $\times (t + \tau) + x$
Moon's Geocentric N.P.D.	81.15.49,73 + 0,1771 $\times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	58.23,33 $\times [9,9990916] \times (1 + 0,001m)$
Moon's Geocentric Semidiameter	15.54,63 $\times (1 + 0,001n)$
Jupiter's Geocentric Right Ascension in arc ...	165.4.42,45 + 0,0011 $(t + \tau) + e$
Jupiter's Geocentric N.P.D.	82.9.35,78 + 0,0006 $(t + \tau) + f$
Geocentric Colatitude of the Observatory	37.58.20,37 + ν

Moon's apparent Right Ascension in arc.....	164.55.8,09 + δR
Moon's apparent N.P.D.....	81.56.21,29 + $\delta \lambda$
Moon's apparent Semidiameter.....	16.6,33 + δS
Jupiter's apparent Right Ascension in arc.....	165.4.42,63 + 0,0011 $(t + \tau) + e$
Jupiter's apparent N.P.D.	82.9.36,95 + 0,0006 $(t + \tau) + f$
Jupiter's apparent Semidiameter	18,20 + c
App ^t . dist. of Jupiter's centre from Moon's centre	16.18,19 + δD

$$\delta R = + 0,3991t + 0,5572\tau + 1,0105x - 0,0003y + 0,3820m + 0,0024\nu$$

$$\delta \lambda = + 0,1756t + 0,1794\tau + 0,0003x + 1,0122y + 2,4614m - 0,0123\nu$$

$$\delta S = + 0,0001t + 0,9663n$$

$$\delta D = - 0,5766\delta R + 0,5766(e + 0,0011 \times \overline{t + \tau}) - 0,8130\delta \lambda + 0,8132(f + 0,0006 \times \overline{t + \tau})$$

Final Equation :

$$+6'',34 = -0,5828x - 0,8227y + 0,5766e + 0,8132f - 0,3718t - 0,4660\tau + 0,0086\nu - 2,2213m - 0,9663n - c.$$

Disapp. of Jupiter, total Immerⁿ. May 19, 6^h.32^m.42^s.71+ t + τ ^s Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	155.20.26,70 + 15,0411 $\times t$
Moon's Geocentric Right Ascension in arc	164.49.46,20 + 0,5514 $\times (t + \tau) + x$
Moon's Geocentric N.P.D.	81.16.7,72 + 0,1771 $\times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	58.23,30 $\times [9,9990916] \times (1 + 0,001m)$
Moon's Geocentric Semidiameter	15.54,62 $\times (1 + 0,001n)$
Jupiter's Geocentric Right Ascension in arc ...	165.4.42,56 + 0,0011 $(t + \tau) + e$
Jupiter's Geocentric N.P.D.	82.9.35,84 + 0,0006 $(t + \tau) + f$
Geocentric Colatitude of the Observatory	37.58.20,37 + ν

Moon's apparent Right Ascension in arc.....	164.55.48,71 + δR
Moon's apparent N.P.D.....	81.56.39,11 + $\delta \lambda$
Moon's apparent Semidiameter.....	16.6,34 + δS
Jupiter's apparent Right Ascension in arc.....	165.4.42,74 + 0,0011 $(t + \tau) + e$
Jupiter's apparent N.P.D.	82.9.37,01 + 0,0006 $(t + \tau) + f$
Jupiter's apparent Semidiameter	18,20 + c
App ^t . dist. of Jupiter's centre from Moon's centre	15.48,14 + δD

$$\delta R = + 0,3990t + 0,5571\tau + 1,0105x - 0,0003y + 0,3663m + 0,0023\nu$$

$$\delta \lambda = + 0,1757t + 0,1794\tau + 0,0003x + 1,0122y + 2,4612m - 0,0123\nu$$

$$\delta S = + 0,0001t + 0,9663n$$

$$\delta D = - 0,5569\delta R + 0,5569(e + 0,0011 \times \overline{t + \tau}) - 0,8269\delta \lambda + 0,8271(f + 0,0006 \times \overline{t + \tau})$$

Final Equation :

$$+7'',47 = -0,5629x - 0,8368y + 0,5569e + 0,8271f - 0,3665t - 0,4575\tau + 0,0089\nu - 2,2390m - 0,9663n + c.$$

Reappearance of Jupiter, first contact, May 19, 7^h.36^m.18^s.40+ t^s + τ^s Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	171. 16. 58,80 + 15,0411 $\times t$
Moon's Geocentric Right Ascension in arc	165. 24. 48,15 + 0,5504 $\times (t + \tau) + x$
Moon's Geocentric N.P.D.	81. 27. 24,99 + 0,1779 $\times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	58. 22,02 $\times [9,9990916] \times (1 + 0,001m)$
Moon's Geocentric Semidiameter	15. 54,27 $\times (1 + 0,001n)$
Jupiter's Geocentric Right Ascension in arc ...	165. 4. 46,70 + 0,0011 $(t + \tau) + e$
Jupiter's Geocentric N.P.D.	82. 9. 38,12 + 0,0006 $(t + \tau) + f$
Geocentric Colatitude of the Observatory	37. 58. 20,37 + ν

Moon's apparent Right Ascension in arc.....	165. 21. 3,44 + δR
Moon's apparent N.P.D.	82. 8. 1,19 + $\delta \lambda$
Moon's apparent Semidiameter.....	16. 6,03 + δS
Jupiter's apparent Right Ascension in arc	165. 4. 46,58 + 0,0011 $(t + \tau) + e$
Jupiter's apparent N.P.D.	82. 9. 39,29 + 0,0006 $(t + \tau) + f$
Jupiter's apparent Semidiameter	18,20 + c
App ^t . dist. of Jupiter's centre from Moon's centre	15. 47,83 + δD

$$\delta R = +0,3968t + 0,5563\tau + 1,0106x + 0,0002y - 0,2271m - 0,0014\nu$$

$$\delta \lambda = +0,1822t + 0,1799\tau - 0,0002x + 1,0122y + 2,4661m - 0,0123\nu$$

$$\delta S = -0,0001t + 0,9660n$$

$$\delta D = +0,9856\delta R - 0,9856(e + 0,0011 \times \overline{t + \tau}) - 0,1005\delta \lambda + 0,1012(f + 0,0006 \times \overline{t + \tau})$$

Final Equation :

$$-24'',83 = +0,9960x - 0,1016y - 0,9856e + 0,1012f + 0,3719t + 0,5292\tau - 0,0002\nu - 0,4718m - 0,9660n + c.$$

Reapp. of Jupiter, total Emersion May 19, 7^h.37^m.55^s.14+ t^s + τ^s Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	171. 41. 13,80 + 15,0411 $\times t$
Moon's Geocentric Right Ascension in arc	165. 25. 41,40 + 0,5504 $\times (t + \tau) + x$
Moon's Geocentric N.P.D.	81. 27. 42,19 + 0,1779 $\times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	58. 21,99 $\times [9,9990916] \times (1 + 0,001m)$
Moon's Geocentric Semidiameter	15. 54,26 $\times (1 + 0,001n)$
Jupiter's Geocentric Right Ascension in arc	165. 4. 46,80 + 0,0011 $(t + \tau) + e$
Jupiter's Geocentric N.P.D.	82. 9. 38,18 + 0,0006 $(t + \tau) + f$
Geocentric Colatitude of the Observatory	37. 58. 20,37 + ν

Moon's apparent Right Ascension in arc.....	165. 21. 41,85 + δR
Moon's apparent N.P.D.	82. 8. 18,79 + $\delta \lambda$
Moon's apparent Semidiameter.....	16. 6,01 + δS
Jupiter's apparent Right Ascension in arc	165. 4. 46,68 + 0,0011 $(t + \tau) + e$
Jupiter's apparent N.P.D.	82. 9. 39,35 + 0,0006 $(t + \tau) + f$
Jupiter's apparent Semidiameter	18,20 + c
App ^t . dist. of Jupiter's centre from Moon's centre	16. 24,21 + δD

$$\delta R = +0,3971t + 0,5562\tau + 1,0106x + 0,0002y - 0,2421m - 0,0015\nu$$

$$\delta \lambda = +0,1823t + 0,1799\tau - 0,0002x + 1,0121y + 2,4665m - 0,0123\nu$$

$$\delta S = -0,0001t + 0,9660n$$

$$\delta D = +0,9875\delta R - 0,9875(e + 0,0011 \times \overline{t + \tau}) - 0,0795\delta \lambda + 0,0802(f + 0,0006 \times \overline{t + \tau})$$

Final Equation :

$$-24'',67 = +0,9979x - 0,0803y - 0,9875e + 0,0802f + 0,3767t + 0,5339\tau - 0,0005\nu - 0,4352m - 0,9660n - c.$$

Disappearance of ξ^1 Sagittarii, May 28, $11^h.51^m.42^s.42 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$244.10.43.20 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc.....	$281.29.17.55 + 0.5303 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$110.1.52.07 - 0.0042 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$54.17.17 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter.....	$14.47.62 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$282.6.49.50 + e''$
Star's N.P.D.....	$110.50.40.10 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$

Moon's apparent Right Ascension in arc.....	$281.50.58.38 + \delta R$
Moon's apparent N.P.D.....	$110.51.11.41 + \delta \lambda$
Moon's apparent Semidiameter	$14.50.18 + \delta S$
Apparent Distance of Star from Moon's centre	$14.49.39 + \delta D$

$$\delta R = +0.4109t + 0.5347\tau + 1.0082x + 0.0023y + 1.3117m + 0.0082v$$

$$\delta \lambda = +0.0265t - 0.0053\tau - 0.0021x + 1.0028y + 2.9663m - 0.0056v$$

$$\delta S = +0.0004t + 0.8902n$$

$$\delta D = -0.9340\delta R + 0.9340e + 0.0344\delta \lambda - 0.0360f.$$

Final Equation :

$$+ 0''.79 = -0.9417x + 0.0323y + 0.9340e - 0.0360f - 0.3832t - 0.4996\tau - 0.0078v - 1.1230m - 0.8902n.$$

Reappearance of ξ^1 Sagittarii, May 28, $13^h.11^m.29^s.12 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$264.10.40.35 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc.....	$282.11.35.25 + 0.5300 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$110.1.31.50 - 0.0062 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$54.16.48 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter.....	$14.47.43 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$282.6.49.50 + e''$
Star's N.P.D.	$110.50.40.10 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$

Moon's apparent Right Ascension in arc.....	$282.22.39.91 + \delta R$
Moon's apparent N.P.D.	$110.52.42.33 + \delta \lambda$
Moon's apparent Semidiameter.....	$14.51.26 + \delta S$
Apparent Distance of Star from Moon's centre	$14.56.48 + \delta D$

$$\delta R = +0.3863t + 0.5352\tau + 1.0099x + 0.0012y + 0.6712m + 0.0042v$$

$$\delta \lambda = +0.0095t - 0.0068\tau - 0.0011x + 1.0042y + 3.0836m - 0.0049v$$

$$\delta S = +0.0002t + 0.8913n$$

$$\delta D = +0.9257\delta R - 0.9257e + 0.1355\delta \lambda - 0.1372f.$$

Final Equation :

$$-5''.22 = +0.9347x + 0.1372y - 0.9257e - 0.1372f + 0.3587t + 0.4945\tau + 0.0032v + 1.0393m - 0.8913n.$$

Disappearance of 21 Sagittarii, July 21, 10^h. 22^m. 26^s. 61 + $t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	275 . 1 . 37,50 + 15,0411 $\times t$
Moon's Geocentric Right Ascension in arc	273 . 57 . 35,55 + 0,5288 $\times (t + \tau) + x''$
Moon's Geocentric N.P.D.	109 . 56 . 45,88 + 0,0208 $\times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	54 . 12,04 $\times [9,9990916] \times (1 + 0,001m)$
Moon's Geocentric Semidiameter	14 . 46,16 $\times (1 + 0,001n)$
Star's Right Ascension in arc	274 . 6 . 53,25 + e''
Star's N.P.D.	110 . 36 . 51,90 + f
Geocentric Colatitude of the Observatory	37 . 58 . 20,37 + ν
Moon's apparent Right Ascension in arc	273 . 56 . 55,58 + δR
Moon's apparent N.P.D.	110 . 48 . 26,45 + $\delta \lambda$
Moon's apparent Semidiameter	14 . 50,39 + δS
Apparent Distance of Star from Moon's centre	14 . 51,59 + δD

$$\delta R = +0,3780t + 0,5343\tau + 1,0104x - 0,0001y - 0,0404m - 0,0003\nu$$

$$\delta \lambda = +0,0199t + 0,0209\tau + 0,0001x + 1,0047y + 3,1153m - 0,0047\nu$$

$$\delta S = 0,0000t + 0,8904n$$

$$\delta D = -0,5865\delta R + 0,5865e + 0,7787\delta \lambda - 0,7793f.$$

Final Equation:

$$-1'',20 = -0,5926x + 0,7824y + 0,5865e - 0,7793f - 0,2062t - 0,2971\tau - 0,0035\nu + 2,4495m - 0,8904n.$$

Reappearance of 21 Sagittarii, July 21, 11^h. 12^m. 38^s. 82 + $t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	287 . 36 . 44,25 + 15,0411 $\times t$
Moon's Geocentric Right Ascension in arc	274 . 24 . 8,40 + 0,5288 $\times (t + \tau) + x''$
Moon's Geocentric N.P.D.	109 . 57 . 46,51 + 0,0195 $\times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	54 . 11,56 $\times [9,9990916] \times (1 + 0,001m)$
Moon's Geocentric Semidiameter	14 . 46,03 $\times (1 + 0,001n)$
Star's Right Ascension in arc	274 . 6 . 53,25 + e''
Star's N.P.D.	110 . 36 . 51,90 + f
Geocentric Colatitude of the Observatory	37 . 58 . 20,37 + ν
Moon's apparent Right Ascension in arc	274 . 15 . 58,11 + δR
Moon's apparent N.P.D.	110 . 49 . 7,97 + $\delta \lambda$
Moon's apparent Semidiameter	14 . 50,04 + δS
Apparent Distance of Star from Moon's centre	14 . 55,56 + δD

$$\delta R = +0,3820t + 0,5341\tau + 1,0101x - 0,0009y - 0,4953m - 0,0031\nu$$

$$\delta \lambda = +0,0080t + 0,0200\tau + 0,0008x + 1,0044y + 3,0951m - 0,0048\nu$$

$$\delta S = -0,0001t + 0,8900n$$

$$\delta D = +0,5322\delta R - 0,5322e + 0,8221\delta \lambda - 0,8226f.$$

Final Equation:

$$-5'',24 = +0,5383x + 0,8253y - 0,5322e - 0,8226f + 0,2100t + 0,3007\tau - 0,0056\nu + 2,2808m - 0,8900n.$$

Disappearance of 21 Capricorni, July 24, $13^h.4^m.12^s.42 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$318.32.8.10 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$312.54.48.90 + 0.5083 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$107.14.18.69 - 0.0896 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$53.55.87 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$14.41.75 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$313.6.49.35 + e''$
Star's N.P.D.	$108.6.27.50 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc	$312.51.23.05 + \delta R$
Moon's apparent N.P.D.	$108.4.52.17 + \delta \lambda$
Moon's apparent Semidiameter	$14.46.53 + \delta S$
Apparent Distance of Star from Moon's centre	$14.45.62 + \delta D$

$$\delta R = +0.3610t + 0.5135\tau + 1.0101x - 0.0003y - 0.2079m - 0.0013v$$

$$\delta \lambda = -0.0944t - 0.0900\tau + 0.0003x + 1.0053y + 3.0498m - 0.0054v$$

$$\delta S = -0.0001t + 0.8865n$$

$$\delta D = -0.9451\delta R + 0.9451e - 0.1079\delta \lambda + 0.1065f.$$

Final Equation:

$$+0''.89 = -0.9547x - 0.1082y + 0.9451e + 0.1065f - 0.3309t - 0.4756\tau + 0.0018v - 0.1326m - 0.8865n.$$

Disappearance of Aldebaran, Aug. 2, $20^h.33^m.42^s.56 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$80.5.22.95 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$66.41.57.30 + 0.5995 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$73.12.47.19 - 0.1132 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$58.58.06 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$16.4.13 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$66.49.55.80 + e''$
Star's N.P.D.	$73.47.51.80 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc	$66.33.6.16 + \delta R$
Moon's apparent N.P.D.	$73.47.30.06 + \delta \lambda$
Moon's apparent Semidiameter	$16.17.47 + \delta S$
Apparent Distance of Star from Moon's centre	$16.9.83 + \delta D$

$$\delta R = +0.4433t + 0.6059\tau + 1.0108x + 0.0008y - 0.5369m - 0.0033v$$

$$\delta \lambda = -0.1047t - 0.1152\tau - 0.0007x + 1.0138y + 2.1119m - 0.0140v$$

$$\delta S = -0.0002t + 0.9775n$$

$$\delta D = -0.9600\delta R + 0.9600e - 0.0214\delta \lambda + 0.0228f.$$

Final Equation:

$$+7''.71 = -0.9704x - 0.0225y + 0.9600e + 0.0228f - 0.4231t - 0.5792\tau + 0.0035v + 0.4702m - 0.9775n.$$

Disappearance of γ Libræ, Aug. 14, $8^h.27^m.57^s.98 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$269.59.57.70 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$231.53.52.05 + 0.5234 \times (t + \tau) + x$
Moon's Geocentric N.P.D.	$103.26.41.13 + 0.1368 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$56.4.59 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$15.16.83 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$231.47.28.50 + e$
Star's N.P.D.	$104.17.6.00 + f$
Geocentric Colatitude of the Observatory.....	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc	$231.31.51.18 + \delta R$
Moon's apparent N.P.D.	$104.16.5.98 + \delta \lambda$
Moon's apparent Semidiameter	$15.21.03 + \delta S$
Apparent Distance of Star from Moon's centre .	$15.10.49 + \delta D$

$$\delta R = +0.4050t + 0.5274\tau + 1.0081x - 0.0015y - 1.3317m - 0.0083v$$

$$\delta \lambda = +0.1150t + 0.1382\tau + 0.0015x + 1.0045y + 2.9774m - 0.0073v$$

$$\delta S = -0.0004t + 0.9210n$$

$$\delta D = -0.9670\delta R + 0.9670e - 0.0660\delta \lambda + 0.0649f.$$

Final Equation:

$$+10''.69 = -0.9750x - 0.0648y + 0.9670e + 0.0649f - 0.3988t - 0.5192\tau + 0.0085v + 1.0912m - 0.9210n.$$

Reappearance of γ Libræ, Aug. 14, $9^h.39^m.11^s.39 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$287.50.22.35 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$232.31.8.55 + 0.5234 \times (t + \tau) + x$
Moon's Geocentric N.P.D.	$103.36.22.51 + 0.1353 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$56.2.33 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$15.16.20 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$231.47.28.50 + e$
Star's N.P.D.	$104.17.6.00 + f$
Geocentric Colatitude of the Observatory.....	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc	$232.1.51.66 + \delta R$
Moon's apparent N.P.D.	$104.23.54.70 + \delta \lambda$
Moon's apparent Semidiameter	$15.18.39 + \delta S$
Apparent Distance of Star from Moon's centre .	$15.30.75 + \delta D$

$$\delta R = +0.4386t + 0.5262\tau + 1.0058x - 0.0021y - 1.7672m - 0.0110v$$

$$\delta \lambda = +0.1057t + 0.1367\tau + 0.0021x + 1.0023y + 2.8571m - 0.0079v$$

$$\delta S = -0.0005t + 0.9184n$$

$$\delta D = +0.8702\delta R - 0.8702e + 0.4391\delta \lambda - 0.4400f.$$

Final Equation:

$$-12''.40 = +0.8762x + 0.4383y - 0.8702e - 0.4400f + 0.4286t + 0.5179\tau - 0.0130v - 0.2835m - 0.9184n.$$

Disappearance of 29 Ophiuchi, Sept. 12, 9^h. 6^m. 9^s. 64 + t^s + τ^s Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	308 . 8 . 35,25 + 15,0411 $\times t$
Moon's Geocentric Right Ascension in arc	253 . 36 . 33,15 + 0,5350 $\times (t + \tau)$ + x''
Moon's Geocentric N.P.D.	108 . 3 . 57,83 + 0,0814 $\times (t + \tau)$ + y
Moon's Horizontal Parallax at the Observatory	55 . 25,70 $\times [9,9990916] \times (1 + 0,001m)$
Moon's Geocentric Semidiameter	15 . 6,28 $\times (1 + 0,001n)$
Star's Right Ascension in arc.....	253 . 16 . 36,90 + e''
Star's N.P.D.	108 . 39 . 27,50 + f
Geocentric Colatitude of the Observatory	37 . 58 . 20,37 + ν
Moon's apparent Right Ascension in arc.....	253 . 7 . 13,30 + δR
Moon's apparent N.P.D.	108 . 51 . 34,25 + $\delta \lambda$
Moon's apparent Semidiameter.....	15 . 7,55 + δS
Apparent Distance of Star from Moon's centre	15 . 2,07 + δD

$$\delta R = +0,4478t + 0,5380\tau + 1,0060x - 0,0028y - 1,7707m - 0,0110\nu$$

$$\delta \lambda = +0,0435t + 0,0830\tau + 0,0026x + 1,0013y + 2,8584m - 0,0070\nu$$

$$\delta S = -0,0005t + 0,9076n$$

$$\delta D = -0,5604\delta R + 0,5604e + 0,8058\delta \lambda - 0,8063f.$$

Final Equation :

$$+5'',91 = -0,5617x + 0,8084y + 0,5604e - 0,8063f - 0,2154t - 0,2347\tau + 0,0005\nu + 3,2957m - 0,9076n.$$

Reappearance of χ^3 Orionis, Nov. 21, 10^h. 6^m. 44^s. 68 + t^s + τ^s Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	32 . 19 . 31,20 + 15,0411 $\times t$
Moon's Geocentric Right Ascension in arc	88 . 24 . 1,50 + 0,6318 $\times (t + \tau)$ + x''
Moon's Geocentric N.P.D.	69 . 45 . 57,99 - 0,0471 $\times (t + \tau)$ + y
Moon's Horizontal Parallax at the Observatory	59 . 21,63 $\times [9,9990916] \times (1 + 0,001m)$
Moon's Geocentric Semidiameter	16 . 10,55 $\times (1 + 0,001n)$
Star's Right Ascension in arc.....	88 . 39 . 31,65 + e''
Star's N.P.D.	70 . 18 . 51,10 + f
Geocentric Colatitude of the Observatory	37 . 58 . 20,37 + ν
Moon's apparent Right Ascension in arc.....	88 . 56 . 27,52 + δR
Moon's apparent N.P.D.	70 . 23 . 10,32 + $\delta \lambda$
Moon's apparent Semidiameter.....	16 . 20,51 + δS
Apparent Distance of Star from Moon's centre	16 . 31,50 + δD

$$\delta R = +0,5417t + 0,6359\tau + 1,0063x - 0,0035y + 1,9586m + 0,0122\nu$$

$$\delta \lambda = -0,0908t - 0,0457\tau + 0,0030x + 1,0102y + 2,2585m - 0,0126\nu$$

$$\delta S = +0,0006t + 0,9805n$$

$$\delta D = +0,9089\delta R - 0,9089e + 0,2626\delta \lambda - 0,2610f.$$

Final Equation :

$$-10'',70 = +0,9154x + 0,2621y - 0,9089e - 0,2610f + 0,4680t + 0,5660\tau + 0,0078\nu + 2,3732m - 0,9805n.$$

Disappearance of 68 Orionis, Nov. 21, 13^h. 15^m. 24^s. 01 + $t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$79.37.6.15 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$90.23.22.95 + 0.6335 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$69.37.44.97 - 0.0400 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.23.72 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$16.11.12 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$90.47.57.30 + e''$
Star's N.P.D.	$70.11.3.40 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$

Moon's apparent Right Ascension in arc.....	$90.30.44.04 + \delta R$
Moon's apparent N.P.D.	$70.9.32.48 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.25.37 + \delta S$
Apparent Distance of Star from Moon's centre .	$16.16.15 + \delta D$

$$\delta R = +0.4717t + 0.6407\tau + 1.0112x - 0.0008y + 0.4461m + 0.0028v$$

$$\delta \lambda = -0.0505t - 0.0401\tau + 0.0007x + 1.0146y + 1.9359m - 0.0147v$$

$$\delta S = +0.0001t + 0.9854n$$

$$\delta D = -0.9366\delta R + 0.9366e - 0.0920\delta \lambda + 0.0937f.$$

Final Equation :

$$+9''.13 = -0.9472x - 0.0926y + 0.9366e + 0.0937f - 0.4373t - 0.5964\tau - 0.0012v - 0.5959m - 0.9854n.$$

Reappearance of the Star (β), Nov. 21, 14^h. 26^m. 10^s. 34 + $t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$97.21.35.55 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc.....	$91.8.14.25 + 0.6341 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$69.35.0.80 - 0.0373 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.24.45 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter.....	$16.11.32 \times (1 + 0.001 n)$
Star's Right Ascension in arc.....	$90.47.0.60 + e''$
Star's N.P.D.	$70.12.7.70 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$

Moon's apparent Right Ascension in arc.....	$91.3.58.26 + \delta R$
Moon's apparent N.P.D.	$70.6.37.34 + \delta \lambda$
Moon's apparent Semidiameter.....	$16.25.70 + \delta S$
Apparent Distance of Star from Moon's centre .	$16.52.64 + \delta D$

$$\delta R = +0.4699t + 0.6413\tau + 1.0114x + 0.0005y - 0.2590m - 0.0016v$$

$$\delta \lambda = -0.0321t - 0.0381\tau - 0.0004x + 1.0147y + 1.9249m - 0.0148v$$

$$\delta S = -0.0001t + 0.9857n$$

$$\delta D = +0.8892\delta R - 0.8892e - 0.3255\delta \lambda + 0.3270f.$$

Final Equation :

$$-26''.94^* = +0.8994x - 0.3298y - 0.8892e + 0.3270f + 0.4284t + 0.5826\tau + 0.0034v - 0.8567m - 0.9857n.$$

* It seems probable from this result compared with that of the next observation that the recorded time was 30^s too late.

Reappearance of 68 Orionis, Nov. 21, 14^h.28^m.16^s.71 + $t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$97.53.16''.20 + 15''.0411 \times t$
Moon's Geocentric Right Ascension in arc	$91.9.34.35 + 0.6341 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$69.34.56.08 - 0.0373 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.24.47 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$16.11.33 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$90.47.57.30 + \theta''$
Star's N.P.D.	$70.11.3.40 + f''$
Geocentric Colatitude of the Observatory	$37.58.20.37 + \nu$
Moon's apparent Right Ascension in arc	$91.4.57.65 + \delta R$
Moon's apparent N.P.D.	$70.6.33.33 + \delta \lambda$
Moon's apparent Semidiameter	$16.25.70 + \delta S$
Apparent Distance of Star from Moon's centre	$16.36.87 + \delta D$

$$\delta R = +0.4702t + 0.6413\tau + 1.0114x + 0.0005y - 0.2799m - 0.0017\nu$$

$$\delta \lambda = -0.0316t - 0.0381\tau - 0.0004x + 1.0148y + 1.9256m - 0.0148\nu$$

$$\delta S = -0.0001t + 0.9857n$$

$$\delta D = +0.9055\delta R - 0.9055e - 0.2698\delta \lambda + 0.2714f.$$

Final Equation:

$$-11''.29 = +0.9159x - 0.2733y - 0.9055e + 0.2714f + 0.4344t + 0.5909\tau + 0.0024\nu - 0.7730m - 0.9857n.$$

APPARENT RIGHT ASCENSIONS

OBSERVED WITH

THE TRANSIT

IN THE YEAR 1851.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
Jan. 4	(a) \odot 1 L..... \odot 2 L.....	....	41,8 3,1	56,0 17,8	10,8 32,3	25,7 47,1	40,1 1,6	....	18.57.10,88 18.59.32,38	-0,7	+3,4	-1,4	11,13 32,63	.	1,14	18.57.57,56 19.0.19,06			B. B.
Jan. 5	(b) α Ceti α Ophiuchi.....	0,9	14,4 42,8	27,8	41,1 10,4	55,0 24,3	8,1 38,2	21,9 51,5	2.53.41,31 17.27.10,39				41,68 10,76	47,95 48,47	1,18				B. T.
Jan. 6	(c) \odot 1 L..... \odot 2 L..... (d) δ 1 L.....	12,4 34,0 20,3	27,0 48,4 34,4	.... 3,0 48,5	.... 17,8 2,5	11,2 32,3 17,1	25,3 47,0 31,1	40,1 1,3 45,4	19.5.56,24 19.8.17,69 22.15.2,76				56,49 17,94 3,02			19.6.45,04 19.9.6,49 22.15.51,72			T. T. T.
Jan. 8	(a) \odot 1 L..... (e) Aldebaran..... (f)(g) Rigel..... (f) β Tauri.....	.... 49,3 50,6 15,2	.... 3,2 30,8	25,0 17,0 46,0	39,3 31,2 31,4 1,3	.... 45,2 45,2 17,0	8,9 59,3 58,6 32,1	.... 13,2 12,2 47,3	19.14.39,60 4.26.31,20 5.6.31,42 5.16.1,38				39,85 31,56 31,71 1,72	51,30 51,50 51,36	1,22	19.15.30,75 4.27.22,93 5.7.23,11 5.16.53,13			T. T. T. T.
Jan. 9	(h) \odot 1 L..... \odot 2 L..... α Aquilæ..... (i) δ 1 L..... ϵ Piscium..... ϵ Piscium..... Polaris..... (a) Bessel r. 732..... α Arietis..... Aldebaran..... * N.P.D. 70°. 16' H. C. 9331..... ϵ Tauri..... Rigel..... (k) ϵ Hydræ.....	.... 37,7 55,4 42,0 38,4 8,1 3,2 10,2 47,8 31,9 54,9 35,7 49,4 19,7	.... 52,1 9,2 55,4 52,3 21,4 7,0 17,1 24,7 1,8 46,0 9,5 50,3 3,3 33,2	45,4 6,6 22,6 5,5 34,8 39,2 15,6 0,1 24,1 4,6 16,4 46,5	0,3 21,1 36,4 23,0 19,2 48,4 26,0 44,8 53,8 29,8 14,4 38,8 19,1 30,1 0,2	15,0 36,0 50,2 37,0 33,2 2,2 16,5 8,6 44,2 29,0 53,6 33,6 44,0 14,1	29,4 50,4 3,6 59,4 50,4 46,4 28,9 34,5 23,1 37,4 12,0 57,9 42,9 8,2 2,5 11,0 27,4	44,1 5,0 16,9 12,9 4,3 0,3 28,9 37,4 57,9 57,4 22,8 2,5 11,0 41,0	19.19.0,28 19.21.21,27 19.42.36,33 0.21.32,43 0.35.23,03 0.54.19,33 0.59.48,45 1.4.29,23 1.39.44,76 1.57.53,86 4.26.29,88 4.45.14,53 4.49.38,85 4.53.19,13 5.6.30,22 8.38.0,30				0,53 21,52 36,70 32,75 23,37 19,71 48,83 36,46 45,13 54,21 30,24 14,89 39,20 19,49 30,51 0,68	52,05 52,50 52,62 52,69 52,77	1,23	19.19.52,66 19.22.13,65 19.43.28,85 0.22.25,14 0.36.15,77 0.55.12,13 1.0.41,25 1.40.37,58 1.58.46,68 4.27.22,84 4.46.7,50 4.50.31,82 4.54.12,11 5.7.23,14 8.38.53,50			T. T. T. T. T. T. T. T. T. T. T. T. T. T. T. T.
Jan. 14	(l) Aldebaran.....	41,3	55,4	9,2	23,3	37,6	51,4	5,3	4.26.23,36		+3,5		23,73	59,10	1,02				T.
Jan. 15	(m) α Arietis.....	2,3	17,2	31,5	46,3	1,2	15,4	30,2	1.57.46,30				46,66	59,96	1,08				T.
Jan. 17	\odot 1 L..... \odot 2 L..... (n) α Ophiuchi..... (o) γ Aquilæ..... (p) α Aquilæ.....	40,9 0,3 14,6 44,2	55,2 14,8 28,5 58,2	9,3 29,0 42,1 51,2 11,4	24,0 43,6 56,2 4,9 25,1	38,8 58,4 9,9 18,8 39,0	53,0 12,6 23,5 32,4 52,4	7,4 27,0 37,2 45,9 6,1	19.53.24,08 19.55.43,67 17.26.56,00 19.38.4,98 19.42.25,20				24,33 43,92 56,38 5,37 25,59		1,32 1,43	19.54.26,10 19.56.45,70 17.27.59,42 19.39.8,54 19.43.28,77			T. T. T. T. T.
Jan. 18	\odot 1 L..... \odot 2 L..... α Ceti..... Rigel..... β Tauri..... (q) α Orionis..... Sirius..... α Hydræ..... (a) δ 2 L.....	55,2 15,0 45,2 38,5 3,1 22,1 49,7 31,6 27,0	10,0 29,6 58,5 52,0 18,5 35,6 3,3 45,2 41,6	24,2 43,9 12,1 5,4 33,6 49,0 17,4 58,6 55,7	38,2 58,6 25,4 19,1 48,9 2,6 31,5 12,2 10,2	53,1 13,2 39,2 32,9 4,4 16,6 46,0 26,0 25,0	7,4 41,6 6,1 0,0 19,4 30,0 59,8 39,4 39,6	22,0 41,6 57,9 0,0 35,0 43,6 13,8 53,2 53,9	19.57.38,59 19.59.58,45 2.53.25,59 5.6.19,19 5.15.48,99 5.46.2,78 6.37.31,64 9.19.12,31 9.22.10,42				38,84 58,70 25,97 19,49 49,34 3,16 31,90 12,61 10,79	63,52 63,67 63,70 63,72 63,82 63,97	1,48	19.58.42,03 20.1.1,89 2.54.29,57 5.7.23,22 5.16.53,09 5.47.6,94 6.38.35,73 9.20.16,59 9.23.14,77			T. T. T. T. T. T. T. T. T.
Jan. 21	(r) \odot 1 L..... \odot 2 L..... (m) β Ceti..... (q) Aldebaran..... (s)(n) α Aquilæ.....	34,4 53,2 13,5 31,2	48,9 7,6 27,6 45,2	3,0 21,9 41,5 59,0 4,7	17,4 36,2 56,2 13,2 18,2	32,0 50,8 10,4 27,4 32,0	46,3 5,0 24,6 41,4 45,4	0,6 19,3 38,8 55,2 59,1	20.10.17,52 20.12.36,29 0.34.56,09 4.26.13,23 19.42.18,29		+3,9	+0,9	17,93 36,70 56,51 13,72 18,80		1,38	20.11.26,43 20.13.45,21 19.43.28,74			T. T. T. T. B.
Jan. 22	\odot 1 L..... \odot 2 L.....	46,6 5,2	0,8 19,8	15,0 34,0	29,2 48,0	44,1 3,0	58,1 17,0	12,3 31,2	20.14.29,45 20.16.48,32				29,87 48,74			20.15.39,84 20.17.58,71			B. B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',344, -26',892, -13',573, -0',060, +13',618, +26',913, +40',337.

(a) Cloudy. (b) The difference of personal equation of B and T, which appears to be variable, was not taken into account in determining the clock's rate on Jan. 4. (c) Interruption by failure of the pencil. (d) Cloudy soon after. (e) The sky had recently cleared: stars very badly defined. (f) Loud wind made the clock inaudible. (g) The last three wires have been increased 1". (h) Very tremulous. (i) Wires lost by failure of the observer's lamp. (k) Very faint from clouds. (l) Bad illumination of the field. (m) Cloudy after this. (n) Tremor. (o) Hardly visible, and extremely unsteady. (p) The times set down have been increased 1". (q) Faint from cloud. (r) A spot near the West Limb passed wire VI at 20^h. 11^m. 5^s. (s) In estimating the rates for Jan. 21 and Jan. 22, B is supposed to observe earlier than T by 0^s.2.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Aimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h.	m.	s.	
Jan. 22	α Pegasi	26,9	40,8	54,4	8,3	22,5	36,1	50,1	22.56.8,45	-0,7	+3,9	+0,9	8,95	70,09	1,33	22.57.19,08			B.
	H. C. 7999 .....	....	....	57,2	11,9	26,6	41,2	55,6	4.8.11,95				12,42			4.9.22,85			B.
	H. C. 8434	31,0	45,7	59,9	14,8	29,7	43,9	58,8	4.20.14,83				15,30			4.21.25,74			B.
	H. C. 8541	26,0	40,0	54,0	8,2	23,0	37,0	51,2	4.23.8,49				8,98			4.24.19,42			B.
	Aldebaran	29,8	43,8	57,7	11,7	26,2	39,9	54,0	4.26.11,87				12,36	70,40		4.27.22,80			B.
	H. C. 8730 .....	....	39,1	53,7	8,2	22,9	37,2	....	4.29.8,22				8,69			4.30.19,14			B.
	τ Tauri	24,1	38,8	53,2	7,9	22,7	37,1	51,8	4.32.7,95				8,42			4.33.18,87			B.
	β Tauri	56,2	11,7	26,7	42,2	57,8	12,8	28,1	5.15.42,21				42,66	70,36		5.16.53,15			B.
	(a) H. C. 10857	11,0	25,2	39,2	53,7	8,0	22,0	36,1	5.35.53,60				54,08			5.37.4,59			B.
	H. C. 10981 .....	....	....	53,2	7,9	22,1	36,8	51,1	5.39.7,81				8,28			5.40.18,80			B.
	H. C. 11070	10,7	25,0	39,1	53,5	7,9	22,0	36,1	5.41.53,44				53,93			5.43.4,45			B.
	α Orionis	15,1	28,3	42,0	55,8	9,5	23,0	36,4	5.45.55,73				56,24	70,62		5.47.6,76			B.
	ϵ Hydræ	2,0	15,4	28,9	42,2	56,2	9,6	23,1	8.37.42,48				42,99	70,65		8.38.53,67			B.
Jan. 23	(b) \odot 1 L.	57,8	12,0	26,1	40,6	55,0	9,1	23,3	20.18.40,55				40,97		1,29	20.19.52,25			B.
	\odot 2 L.	16,1	30,2	44,6	59,0	13,6	27,9	42,0	20.20.59,06				59,48			20.22.10,77			B.
	α Arietis	50,7	5,2	19,7	34,3	49,1	3,7	18,0	1.57.34,38				34,85	71,66		1.58.46,44			B.
	Rigel	30,1	43,9	57,2	10,9	24,7	38,3	51,7	5.6.10,97				11,41	71,71		5.7.23,16			B.
	Sirius	41,3	55,3	9,2	23,4	37,8	51,4	5,6	6.37.23,43				23,85	71,86		6.38.35,68			B.
	(c) Pollux .....	....	30,6	45,1	0,0	15,1	30,0	....	7.35.0,16				0,61	(71,55)		7.36.12,50			B.
	α Hydræ	23,6	37,1	50,6	4,1	18,1	31,6	45,0	9.19.4,30				4,74	71,91		9.20.16,72			B.
	(d) Metis	6,2	21,0	35,2	50,0	4,8	19,1	33,7	9.50.50,00				50,46			9.52.2,47			B.
	α Aquilæ .....	....	48,8	2,1	15,9	29,8	43,0	56,6	19.42.15,90				16,41	72,49	1,29	19.43.28,96			B.
Jan. 24	(e) \odot 1 L.	8,1	22,2	36,6	51,0	5,5	19,5	34,0	20.22.50,98				51,40			20.24.3,99			B.
	\odot 2 L.	26,3	40,6	55,0	9,2	23,5	38,0	52,1	20.25.9,25				9,67			20.26.22,26			B.
	(f) Aldebaran	27,2	41,1	55,2	9,2	23,4	37,1	51,1	4.27.9,18				9,67	13,06		4.27.22,69			B.
	H. C. 15398	24,7	39,1	52,9	7,2	21,6	35,5	49,7	7.46.7,24				7,72			7.46.20,92			B.
	H. C. 15528	12,0	26,2	40,9	55,2	10,0	24,1	38,9	7.49.55,33				55,80			7.50.9,00			B.
	H. C. 15601 .....	....	32,5	46,2	0,8	15,0	28,9	....	7.52.0,68				1,17			7.52.14,37			B.
	H. C. 15702	6,0	20,1	34,9	49,3	4,1	18,7	33,2	7.54.49,48				49,94			7.55.3,14			B.
	ϵ Hydræ	59,1	12,9	26,1	40,0	53,6	7,1	20,8	8.38.39,94				40,45	13,22		8.38.53,70			B.
	α Hydræ	22,1	35,9	49,2	3,0	16,8	29,9	43,9	9.20.2,97				3,42	13,25		9.20.16,70			B.
	(g) Metis .....	....	....	....	....	13,0	27,2	42,0	9.50.58,23				58,70			9.51.12,01			B.
Jan. 27	(e) \odot 1 L.	34,7	48,8	3,3	17,6	32,0	46,0	0,1	20.36.17,50			+4,1	17,92		1,21	20.36.34,37			B.
	\odot 2 L.	52,4	6,5	20,8	35,2	49,5	3,3	17,9	20.38.35,09				35,51			20.38.51,96			B.
	Bessel ix. 319 .....	....	....	15,2	29,1	42,9	56,3	10,1	2.19.28,98				29,49			2.19.46,23			B.
	Aldebaran	23,3	37,2	51,2	5,2	19,7	33,2	47,1	4.27.5,27				5,77	16,93		4.27.22,61			B.
	(h) H. C. 10080	8,1	22,2	36,7	51,0	5,4	19,9	34,0	5.14.51,04				51,53			5.15.8,41			B.
	β Tauri	49,7	5,0	20,1	35,7	51,1	6,2	21,7	5.16.35,64				36,10	16,88		5.16.52,99			B.
	(i) B.A.C. 1703	35,0	....	3,0	17,0	31,1	45,1	59,1	5.19.17,05				17,55			5.19.34,44			B.
	H. C. 10390	21,2	36,1	50,9	5,8	20,8	35,2	50,2	5.24.5,75				6,21			5.24.23,10			B.
	Sirius	36,2	50,2	4,1	18,2	32,7	46,2	0,3	6.38.18,28				18,70	17,00		6.38.35,65			B.
	Pollux .....	....	24,1	39,4	54,8	10,2	25,4	....	7.35.54,78				55,24	16,93		7.36.12,24			B.
	ϵ Hydræ	55,4	9,1	22,5	36,0	50,0	3,2	16,9	8.38.36,16				36,68	17,01		8.38.53,74			B.
	(k) Metis	31,1	45,9	0,2	14,9	29,8	....	59,1	9.48.15,04				15,52			9.48.32,63			B.
	(l) δ Ursæ Minoris ..	....	16,3	1,0	47,7	....	....	....	18.19.49,23				51,45		1,17				B.
	α Aquilæ .....	....	....	57,1	10,8	24,7	38,0	51,7	19.43.10,87				11,39	17,55		19.43.29,00			B.
Jan. 28	(m) \odot 2 L.	59,8	14,0	27,8	42,1	56,8	11,0	25,0	20.42.42,35				42,77			20.43.0,43			B.
	α Pegasi	19,0	33,0	46,8	0,8	15,0	28,5	42,3	22.57.0,77				1,27	17,74		22.57.19,04			B.
	(n) ϵ Hydræ	54,1	7,8	21,1	34,8	48,8	2,0	15,6	8.38.34,89				35,41	18,29		8.38.53,65			B.
	Bessel ix. 222 .....	....	9,5	23,0	37,1	51,0	4,4	....	9.10.37,00				37,51			9.10.55,78			B.
	(o) H. C. 18457	30,9	44,8	58,8	12,8	27,1	41,0	55,0	9.14.12,91				13,41			9.14.31,68			B.
	(o) α Hydræ	17,0	30,7	45,0	57,8	11,6	25,2	38,3	9.19.57,95				58,40	18,31		9.20.16,67			B.
	(p) H. C. 18861	5,6	19,9	34,1	48,2	3,0	17,1	31,1	9.27.48,43				48,92			9.28.7,20			B.
	B.A.C. 3299	12,1	25,6	39,2	53,1	7,2	21,1	34,9	9.30.53,31				53,82			9.31.12,10			B.
	(q) Bessel ix. 562	18,3	32,3	45,3	59,0	12,7	26,1	....	9.48.59,06				59,58			9.44.17,87			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^{\circ}344$, $-26^{\circ}892$, $-13^{\circ}573$, $-0^{\circ}060$, $+13^{\circ}618$, $+26^{\circ}913$, $+40^{\circ}337$.

Jan. 24, after the Sun, Hardy was put forward 1^m.

(a) 'Several in the field.' (b) Obscured by cloud, but observed satisfactorily. (c) Seconds not taken from the clock. The clock-error being discordant is not used. (d) 'Very good.' (e) Great motion. (f) Each wire has been diminished 1". (g) The observer was delayed at the Northumberland Dome. (h) The noted time was 1^m greater. (i) 'A fainter of nearly the same N.P.D. follows.' (j) Bright at first but clouded at the last wires; the observation was considered good. (k) Very faint. (l) Cloudy at times. (m) Till this time the night had been cloudy. (n) Bad definition. (p) 'High in the field.' (q) Invisible at times from passing cloud.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Jan. 28	(a) Metis.....	34,2	48,0	....	17,3	32,5	....	2,0	9.47.17,70	-0,7	+4,1	+0,9	18,18		1,17	9.47.36,48			B.
Jan. 30	⊙ 1 L.....	54,8	9,0	23,0	37,0	51,6	5,3	19,8	20.48.37,22				37,64		1,10	20.48.57,60			B.
	⊙ 2 L.....	11,8	26,0	40,0	54,1	8,7	22,7	36,8	20.50.54,30				54,72			20.51.14,68			B.
Jan. 31	(b) Pollux.....	....	....	35,1	....	7,5	20,9	34,2	7.35.50,30		+3,5	+1,5	50,73	21,46	1,10				B.
Feb. 1	(c) ⊙ 1 L.....	....	....	....	46,7	1,0	15,0	28,9	20.56.46,70				47,14		1,22	20.57.9,35			B.
	⊙ 2 L.....	21,1	35,0	49,0	3,1	17,5	31,4	45,7	20.59.3,26				3,70			20.59.25,91			B.
Feb. 1	α Ceti.....	....	....	....	6,4	20,1	33,4	47,0	2.54.6,49				7,01	22,28		2.54.29,33			T.
	(d) H. C. 5970.....	....	58,1	12,3	26,3	40,6	54,9	....	3.5.26,44				26,92			3.5.49,25			T.
	B.A.C. 1373.....	4,6	18,9	33,2	47,7	2,4	16,5	31,0	4.18.47,76				48,23			4.19.10,62			T.
	H. C. 8541.....	13,6	27,9	42,1	56,2	10,6	24,8	38,9	4.23.56,30				56,78			4.24.19,17			T.
	Aldebaran.....	17,8	31,8	45,6	59,5	14,0	27,7	41,6	4.26.59,72				0 21	22,43		4.27.22,61			T.
	(e) τ Tauri.....	12,0	26,5	40,9	55,5	10,4	24,9	39,4	4.32.55,66				56,12			4.33.18,52			T.
	H. C. 8917.....	55,4	10,2	25,1	40,1	55,6	10,1	25,1	4.36.40,23				40,67			4.37.3,07			T.
	H. C. 9008.....	47,1	1,5	15,9	30,3	45,0	59,1	13,4	4.39.30,32				30,79			4.39.53,20			T.
	H. C. 9136.....	28,6	43,2	57,4	12,5	27,1	41,3	56,1	4.44.12,31				12,77			4.44.35,18			T.
	H. C. 9250.....	15,0	30,2	45,1	0 3	15,8	30,8	45,8	4.48.0 43				0 87			4.48.23,28			T.
	H. C. 9412.....	44,9	59,0	12,7	26,9	40,9	54,8	8,7	4.52.26,84				27,33			4.52.49,75			T.
	H. C. 9517.....	4,1	18,2	32,3	46,3	0 9	14,9	29,0	4.55.46,53				47,01			4.56.9,43			T.
	B.A.C. 1577.....	5,6	20,4	36,0	51,1	6,9	21,9	37,2	4.58.51,30				51,73			4.59.14,15			T.
	H. C. 9704.....	47,1	2,1	17,7	33,2	48,6	3,9	19,0	5.1.33,08				33,52			5.1.55,94			T.
	Rigel.....	19,2	33,1	46,3	0 2	14,1	27,4	41,0	5.7.0 18				0 65	22,38		5.7.23,08			T.
	H. C. 9929.....	1,5	16,1	31,0	45,9	1,2	15,9	30,8	5.10.46,06				46,51			5.11.8,94			T.
	H. C. 10007.....	....	40,3	55,3	11,0	26,8	42,0	....	5.13.11,08				11,52			5.13.33,95			T.
	β Tauri.....	44,0	59,6	14,5	29,9	45,6	0 6	15,7	5.16.29,99				30,43	22,50		5.16.52,87			T.
	(f) α Orionis.....	3,3	16,6	30,3	43,8	57,4	10,9	24,6	5.46.43,84				44,36	22,44		5.47.6,82			T.
Feb. 3	(g) Sirius.....	28,2	42,1	56,0	10,0	24,3	38,1	52,0	6.38.10,10				10,55	25,10	1,31	6.38.35,57			T.
	Castor.....	....	....	24,6	40,4	56,3	12,2	28,0	7.24.40,41				40,83	25,10		7.25.5,89			T.
	Procyon.....	24,7	38,3	51,4	5,1	18,9	32,2	45,8	7.31.5,20				5,73	25,01		7.31.30,80			T.
	(h) Pollux.....	0 9	16,1	31,2	46,4	2 2	17,4	32,5	7.35.46,67				47,10	25,08		7.36.12,17			T.
	(h) ε Hydræ.....	47,4	1 0	14,5	28,0	41,7	55,2	8,7	8.38.28,07				28,59	25,16		8.38.53,72			T.
	(h) α Hydræ.....	10,5	24,1	37,4	51,1	....	....	32,0	9.19.51,21				51,68	25,09		9.20.16,85			T.
	α Aquilæ.....	22,1	35,7	49,2	2 9	16,5	30,2	43,6	19.43.2,88				3,40	25,66	1,33	19.43.29,14			T.
Feb. 4	⊙ 1 L.....	11,6	25,6	39,9	53,9	8,1	22,0	36,0	21.8.53,87				54,31			21.9.20,13			T.
	⊙ 2 L.....	27,6	41,5	55,6	9,4	23,8	37,8	51,9	21.11.9,66				10,10			21.11.35,92			T.
	α Andromedæ ..	28,3	43,5	58,6	13,9	29,4	44,6	59,7	0.0.14,00				14,43	25,95		0.0.40,41			T.
	(i) α Ceti.....	22,0	35,3	48,5	2,4	16,1	29,3	42,9	2.54.2,36				2,88	26,37		2.54.29,02			T.
	Aldebaran.....	13,9	27,8	41,6	55,8	10,1	23,9	38,0	4.26.55,87				56,36	26,23		4.27.22,59			T.
	Rigel.....	15,4	29,1	42,6	56,2	10,1	23,4	37,1	5.6.56,27				56,74	26,25		5.7.23,00			T.
	β Tauri.....	40,3	55,4	10,7	26,1	41,4	56,6	12,1	5.16.26,09				26,52	26,37		5.16.52,79			T.
	α Orionis.....	59,3	12,9	26,3	39,9	53,5	7 2	20,4	5.46.39,93				40,45	26,32		5.47.6,75			T.
	H. C. 12158.....	....	....	48,5	3 2	18,1	32,4	47,2	6.14.3,25				3,71			6.14.30,03			T.
	(k) H. C. 12339.....	25,4	40,3	55,2	10,5	25,8	40,6	56,0	6.19.10,54				10,98			6.19.37,31			T.
	δ Ursæ Min. SP.	26,0	11,3	54,5	....	34,0	....	4 8	6.19.44,91				44,01						T.
	22 Geminorum ..	42,6	56,9	11,0	25,4	39,8	54,0	8 2	6.25.25,41				25,88			6.25.52,21			T.
	(l) H. C. 12871.....	16,2	30,6	44,6	58,6	13,2	27,2	41,3	6.33.58,82				59,30			6.34.25,64			T.
	Castor.....	....	7 4	23,0	39,1	55,3	10,7	....	7.24.39,10				39,52	26,41		7.25.5,91			T.
	Procyon.....	23,4	37,0	50,3	3 9	17,5	31,0	44,4	7.31.3,93				4,46	26,28		7.31.30,85			T.
	Pollux.....	59,5	14,9	30,1	45,4	1 0	16,2	31,4	7.35.45,50				45,93	26,25		7.36.12,33			T.
	(m) 82 Geminorum ..	28,4	43,2	58,0	12,4	27,4	42,1	56,6	7.39.12,58				13,03			7.39.39,43			T.
	(n) Metis.....	....	47,0	0 4	....	30,0	44,4	....	9.40.15,44				15,89			9.40.42,41			T.
Feb. 5	ε Hydræ.....	44,9	58,4	11,6	25,4	39,2	52,5	6 2	8.38.25,46				25,98	27,77	1,27	8.38.53,77			T.
	Bessel VIII. 1264.	45,1	59,0	12,6	26,5	40,3	54,1	7 7	8.48.26,47				26,97			8.48.54,77			T.
	Bessel VIII. 1344.	49,6	3 2	17,1	31,0	45,2	59,0	12 8	8.51.31,12				31,63			8.51.59,44			T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40^s.344, -26^s.892, -13^s.573, -0^s.060, +13^s.618 +26^s.913, +40^s.337.

(a) Invisible at times from passing cloud. (b) Very cloudy: the observation mere guess. (c) In estimating the rate for this day, B is supposed to observe earlier than T by 0.2. (d) 'A brighter south-precursor.' (e) 'The north-following and brighter of two.' (f) The counting was 5^s fast. Soon after this observation the sky was overcast. (g) 'Surrounded by a corona.' (h) Obscured by cloud. (i) Faint from cloud. The noted time was 5^s greater. (k) 'The south-precursor of two.' (l) 'One of the same magnitude and less N.P.D., follows about 2^s, viz. H. C. 12875. (m) 'A fainter of the same N.P.D. preceded considerably.' (n) Very faint from cloud: hid at the other wires.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		".	".	".	".	".	".	".		"	"	"				"	"	"	
Feb. 5	H. C. 17847.....	53,2	7,5	22,0	36,5	51,1	5,5	19,6	8.54.36,59	-0,7	+3,5	+1,5	37,06		1,27	8.55.48,87	T.		
	B.A.C. 3103.....	58,4	12,5	26,5	40,8	54,8	....	....	8.57.26,60				27,08			8.57.54,90	T.
	Bessel VIII. 1552.	10,7	24,5	38,3	52,3	6,3	20,1	34,0	9.0.52,31				52,81			9.1.20,63	T.		
	(a) Bessel IX. 119...	11,1	24,8	38,5	52,1	6,2	20,0	33,4	9.5.52,30				52,81			9.6.20,63	T.		
	H. C. 18320.....	43,4	57,4	11,5	26,0	40,6	54,6	9,1	9.9.26,09				26,57			9.9.54,39	T.		
	H. C. 18414.....	53,6	12,8	26,7	40,9	55,2	9,0	23,1	9.12.40,80				41,29			9.13.9,12	T.		
	(b) α Hydræ.....	7,5	21,4	35,0	48,3	2,2	....	29,2	9.19.48,46				48,93	27,86		9.20.16,76	T.	
	(c) Metis.....	....	42,6	57,2	11,9	26,9	41,5	....	9.39.12,02				12,47			9.39.40,32	T.
	Regulus.....	17,0	30,7	44,4	58,3	12,2	26,0	39,4	9.59.58,29				58,79	27,87		10.0.26,66	T.		
	(d) γ Aquilæ.....	59,3	12,6	26,5	39,9	53,9	7,5	21,1	19.38.40,12				40,64	28,27	1,30	19.39.8,94	T.		
α Aquilæ.....	19,6	33,2	46,6	0,2	14,1	27,6	41,1	19.43.0,34				0,86	28,23		19.43.29,16	T.			
Feb. 6	(f) (e) ☉ 1 L.....	12,2	26,2	40,3	....	8,9	22,5	36,5	21.16.54,42				54,86			21.17.23,25	T.	
	☉ 2 L.....	27,4	40,8	55,4	9,6	24,0	37,6	51,9	21.19.9,53				9,97			21.19.38,35	T.		
	☽ 1 L.....	16,1	30,0	43,7	57,3	11,4	25,1	38,9	1.5.57,50				58,02			1.6.26,62	T.		
	α Orionis.....	56,7	10,2	23,9	37,2	51,2	4,4	18,0	5.46.37,37				37,89	28,86		5.47.6,74	T.		
	Castor.....	48,9	4,8	20,6	36,4	52,7	8,3	24,2	7.24.36,56				36,98	28,94		7.25.5,92	T.		
	Procyon.....	20,8	34,2	47,5	1,2	15,1	28,3	41,8	7.31.1,27				1,80	28,94		7.31.30,75	T.		
	ε Hydræ.....	43,4	57,1	10,6	24,3	37,9	51,5	4,7	8.38.24,21				24,73	29,02		8.38.53,74	T.		
	α Hydræ.....	6,5	20,2	33,5	47,3	1,0	14,5	28,1	9.19.47,30				47,77	29,03		9.20.16,81	T.		
	(g) Metis.....	24,4	39,1	53,6	8,6	23,6	38,0	52,8	9.38.8,59				9,04			9.38.38,10	T.		
	Regulus.....	15,5	29,3	43,2	57,0	11,1	24,5	38,3	9.59.56,99				57,49	29,18		10.0.26,57	T.		
Feb. 8	(h) ☉ 1 L.....	9,8	23,7	37,2	51,5	5,8	19,5	33,4	21.24.51,55		+2,5		51,96		1,41	21.25.23,10	T.		
	☉ 2 L.....	24,3	38,4	52,3	6,2	20,5	34,3	48,2	21.27.6,32				6,73			21.27.37,88	T.		
	(i) α Andromedæ.....	....	....	....	....	24,3	39,4	54,5	0.0.8,80				9,16	(31,18)		0.0.40,46	T.
	ξ Ceti.....	1,4	14,6	28,2	42,0	55,4	9,2	22,6	2.19.41,91				42,38			2.20.13,82	T.		
	ν Ceti.....	50,5	4,0	17,3	30,9	44,6	57,9	11,4	2.27.30,94				31,42			2.28.2,86	T.		
	☽ 1 L.....	49,4	3,2	17,1	31,4	45,8	59,3	13,4	2.42.31,37				31,83			2.43.3,29	T.		
	α Ceti.....	16,7	30,2	43,3	57,2	10,9	24,2	37,5	2.53.57,15				57,63	31,55		2.54.29,10	T.		
	σ Tauri.....	35,0	48,4	1,9	15,5	29,4	42,9	56,5	3.16.15,66				16,13			3.16.47,62	T.		
	f Tauri.....	25,5	39,4	53,1	6,9	20,8	34,6	48,2	3.22.6,93				7,39			3.22.38,89	T.		
	Aldebaran.....	8,4	22,5	36,3	50,5	4,7	18,5	32,4	4.26.50,47				50,90	31,64		4.27.22,46	T.		
	Rigel.....	10,2	23,6	37,2	51,0	4,7	18,1	31,4	5.6.50,88				51,31	31,63		5.7.22,91	T.		
	α Orionis.....	54,1	7,4	21,1	34,4	48,4	1,6	15,2	5.46.34,60				35,07	31,66		5.47.6,71	T.		
Procyon.....	18,1	31,6	45,0	58,6	12,2	25,6	39,0	7.30.58,59				59,07	31,66		7.31.30,81	T.			
Pollux.....	54,3	9,6	24,6	40,1	55,6	10,8	26,0	7.35.40,14				40,51	31,66		7.36.12,26	T.			
ε Hydræ.....	40,9	54,4	7,7	21,5	35,2	48,6	2,1	8.38.21,48				21,95	31,81		8.38.53,75	T.			
(k) α Hydræ.....	....	....	30,9	44,4	58,4	11,8	25,2	9.19.44,56				44,99	31,82		9.20.16,84	T.	
(l) Metis.....	....	31,2	45,7	0,7	15,9	30,4	....	9.36.0,78				1,17			9.36.33,03	T.	
Feb. 11	(m) ☉ 1 L.....	59,3	13,1	27,0	40,9	55,2	9,0	22,9	21.36.41,05			+0,1	41,38		1,40	21.37.16,81	T.		
	☉ 2 L.....	13,5	27,3	41,1	55,0	9,2	22,9	36,9	21.38.55,13				55,46			21.39.30,89	T.		
	Aldebaran.....	4,2	18,2	32,2	46,2	0,5	14,2	28,2	4.26.46,24				46,61	35,88		4.27.22,44	T.		
	11 Orionis.....	45,3	59,4	13,3	27,4	41,4	55,2	9,1	4.55.27,30				27,68			4.56.3,54	T.		
	15 Orionis.....	52,4	6,5	20,2	34,4	48,4	2,3	16,1	5.0.34,33				34,71			5.1.10,57	T.		
	Rigel.....	5,9	19,5	33,0	46,5	0,5	13,9	27,5	5.6.46,69				47,04	35,85		5.7.22,91	T.		
	(n) β Tauri.....	30,7	46,1	1,2	16,4	32,2	47,2	2,5	5.16.16,62				16,94	35,85		5.16.52,82	T.		
	☽ 1 L.....	42,4	57,1	11,3	26,3	41,2	56,0	10,5	5.29.26,40				26,76			5.30.2,65	T.		
	α Orionis.....	49,4	3,2	16,5	30,3	44,1	57,4	11,0	5.46.30,27				30,68	36,02		5.47.6,59	T.		
	μ Geminorum.....	37,2	51,6	6,2	20,8	35,6	50,2	4,5	6.13.20,87				21,22			6.13.57,15	T.		
	Castor.....	42,0	57,6	13,6	29,6	45,7	1,4	17,4	7.24.29,62				29,93	35,97		7.25.5,93	T.		
	Procyon.....	13,8	27,3	40,8	54,3	8,0	21,3	34,9	7.30.54,34				54,75	35,97		7.31.30,76	T.		
Pollux.....	50,1	5,3	20,4	35,8	51,4	6,5	21,8	7.35.35,90				36,22	35,94		7.36.12,23	T.			
ε Hydræ.....	36,4	50,2	3,4	17,2	31,0	44,4	57,9	8.38.17,22				17,63	36,14		8.38.53,70	T.			
(o) α Hydræ.....	59,5	13,2	26,6	40,4	54,2	7,5	21,2	9.19.40,37				40,72	36,11		9.20.16,83	T.			
Feb. 12	☉ 1 L.....	....	8,1	21,9	35,6	50,0	3,6	....	21.40.35,84				36,17			21.41.13,00	T.
	☉ 2 L.....	8,1	22,0	35,8	49,6	3,9	17,5	31,4	21.42.49,76				50,09			21.43.26,93	T.		

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

- (a) 'The middle one of three nearly in a line.' (b) Much clouded; scarcely seen at times. (c) 'Satisfactory observation.' (d) Very faint.
 (e) Cloudy. (f) The observer noticed an unusual number of spots on the Sun. (g) 'Good observation. The Planet was quite alone and appeared of Mag. 8.9.' (h) Unsatisfactory observation: clouds passing and great unsteadiness. (i) Not used for clock-error. (k) Clouded at first.
 (l) 'A brighter object of greater N.P.D. followed.' (m) Great motion. (n) The counting was 1^s slow. (o) After this the sky was quite overcast.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h.	m.	s.	
Feb. 14	(a) ☉ 1 L.....	42,0	....	9,6	23,5	37,4	51,1	5,1	21.48.23,51	-0,7	+3,3	+0,1	23,86		1,41	21.49.34,1			T.
	(b) δ Cancri.....	....	4,6	18,6	33,0	47,4	1,5	15,6	8.35.33,02				33,44			8.36.13,02			T.
	(b) ε Hydræ.....	32,5	46,2	59,4	13,2	26,8	40,4	53,5	8.38.13,14				13,58	40,19		8.38.53,76			T.
	) 1 L.....	11,4	26,0	40,2	55,1	10,0	24,2	39,0	8.48.55,13				55,54			8.44.35,73			T.
	α Hydræ.....	55,4	9,2	22,4	36,3	50,0	3,4	17,1	9.19.36,26				36,64	40,20		9.20.16,87			T.
	(b) ξ Leonis.....	33,5	47,2	1,0	14,9	28,6	42,3	56,1	9.23.14,80				15,24			9.23.55,47			T.
	o Leonis.....	50,9	4,3	18,0	31,7	45,6	59,2	12,9	9.32.31,80				32,24			9.33.12,48			T.
	Regulus.....	4,9	18,3	32,1	46,0	0,0	13,5	27,3	9.59.46,02				46,45	40,30		10.0.26,72			T.
Feb. 15	(c) ☉ 1 L.....	34,6	48,2	2,1	16,0	30,0	43,3	57,2	21.52.15,92				16,27		1,44	21.52.57,23			T.
	☉ 2 L.....	47,8	1,5	15,0	29,2	43,1	56,9	10,3	21.54.29,12				29,47			21.55.10,43			T.
	Aldebaran.....	58,4	12,7	26,4	40,6	54,9	8,7	22,6	4.26.40,61				41,03	41,39		4.27.22,39			T.
	Rigel.....	0,3	14,0	27,4	41,1	54,6	8,4	22,0	5.6.41,11				41,49	41,34		5.7.22,89			T.
	α Orionis.....	44,0	57,4	11,1	24,6	38,4	51,8	5,4	5.46.24,67				25,11	41,53		5.47.6,55			T.
	(d) H. C. 12158.....	....	....	33,3	....	2,6	17,4	31,9	6.13.48,00				48,40			6.14.29,86			T.
	(d) 15 Geminorum.....	29,1	43,3	57,4	12,2	26,7	41,0	55,6	6.18.12,18				12,58			6.18.54,05			T.
	δ Ursæ Min. SP.....	....	59,5	43,8	35,0	21,0	6,0	53,0	6.19.33,15				31,38			....			T.
	22 Geminorum.....	27,3	41,4	55,5	10,2	24,3	38,5	53,1	6.25.10,04				10,45			6.25.51,92			T.
	H. C. 12716.....	....	12,2	26,6	41,6	56,6	11,4	....	6.29.41,68				42,07			6.30.23,55			T.
	(f) H. C. 12871.....	1,6	15,5	29,3	43,6	58,1	12,1	26,2	6.33.43,77				44,19			6.34.25,67			T.
	H. C. 13125.....	21,3	36,2	51,0	6,0	21,2	36,2	51,1	6.41.6,15				6,53			6.41.48,02			T.
	H. C. 13259.....	47,2	2,4	17,5	32,6	47,9	2,6	17,9	6.44.32,58				32,96			6.45.14,45			T.
	Castor.....	36,3	52,3	7,9	23,8	40,0	55,7	11,6	7.24.23,91				24,31	41,56		7.25.5,84			T.
	Procyon.....	8,2	21,6	35,2	48,7	2,3	15,9	29,3	7.30.48,75				49,20	41,49		7.31.30,74			T.
	Pollux.....	44,4	59,8	14,9	30,2	45,4	0,8	16,2	7.35.30,24				30,62	41,52		7.36.12,17			T.
	ε Hydræ.....	31,0	44,6	58,2	11,6	25,6	38,9	52,4	8.38.11,75				12,19	41,58		8.38.53,80			T.
	α Hydræ.....	54,2	7,6	21,1	34,9	48,6	2,1	15,6	9.19.34,87				35,25	41,59		9.20.16,90			T.
	ξ Leonis.....	32,1	46,0	59,3	13,4	27,1	40,9	54,6	9.23.13,34				13,78			9.23.55,43			T.
	(g) Metis.....	52,5	7,3	22,1	37,1	52,1	6,7	21,6	9.28.37,06				37,45			9.29.19,11			T.
	o Leonis.....	49,4	3,1	16,5	30,3	44,3	57,9	11,5	9.32.30,42				30,86			9.33.12,52			T.
	) 1 L.....	....	22,0	36,2	50,6	5,2	19,2	....	9.48.50,64				51,07			9.49.32,75			T.
	(h) 2 L.....	32,9	46,9	1,2	15,7	30,2	44,5	58,8	9.51.15,74				16,17			9.51.57,85			T.
	(i) Regulus.....	....	....	....	44,3	58,6	12,2	26,0	9.59.44,57				45,00	41,76		10.0.26,69			T.
	ρ Leonis.....	35,4	49,2	2,5	16,4	30,3	44,0	57,3	10.24.16,44				16,88			10.24.58,59			T.
Feb. 17	(k) ☉ 1 L.....	17,3	31,0	44,4	58,6	12,3	26,2	40,1	21.59.58,56	-1,1			58,89		1,29	22.0.42,82			T.
	☉ 2 L.....	30,1	43,9	57,6	11,5	25,6	39,0	52,9	22.2.11,51				11,84			22.2.55,78			T.
	(l) α Andromedæ.....	....	25,2	40,4	55,8	11,2	26,4	....	23.59.55,80				56,15	44,11		0.0.40,20			T.
	α Arietis.....	17,6	32,4	47,0	1,4	16,4	30,8	45,4	1.58.1,57				1,94	44,17		1.58.46,11			T.
	β Tauri.....	22,2	37,2	52,5	8,0	23,4	38,6	53,8	5.16.7,96				8,31	44,38		5.16.52,67			T.
	(m) Procyon.....	....	....	32,3	45,6	59,4	12,8	26,3	7.30.45,77				46,19	44,49		7.31.30,67			T.
	(m) Pollux.....	41,6	56,7	12,0	27,4	42,9	57,9	13,2	7.35.27,39				27,74	44,39		7.36.12,23			T.
Feb. 18	(n) ☉ 1 L.....	....	22,4	35,2	49,1	3,3	16,9	30,6	22.3.49,36				49,69			22.4.35,02			T.
	☉ 2 L.....	20,4	34,3	48,0	....	....	....	....	22.5.1,81				2,14			22.5.47,47			T.
Feb. 20	(o) ☉ 1 L.....	47,1	1,2	14,6	28,4	42,5	56,0	9,7	22.11.28,50				28,83		1,31	22.12.16,26			T.
	☉ 2 L.....	59,4	13,3	26,5	40,4	54,4	8,1	21,9	22.13.40,57				40,90			22.14.28,34			T.
Feb. 21	☉ 1 L.....	36,0	49,6	3,4	17,1	31,1	44,7	58,4	22.15.17,19		+2,7	-0,5	17,47			22.16.6,22			T.
	☉ 2 L.....	48,1	1,9	15,5	29,2	43,1	56,7	10,4	22.17.29,28				29,56			22.18.18,31			T.
	Aldebaran.....	51,0	4,9	18,8	33,0	47,2	1,1	14,8	4.26.32,97				33,30	49,02		4.27.22,38			T.
	Rigel.....	52,4	6,2	19,6	33,3	47,2	0,5	14,1	5.6.33,33				33,63	49,10		5.7.22,75			T.
	β Tauri.....	....	32,5	47,6	3,2	19,0	33,8	....	5.16.3,22				3,51	49,11		5.16.52,64			T.
	α Orionis.....	26,3	50,0	3,3	17,1	30,7	44,3	57,8	5.46.17,07				17,43	49,12		5.47.6,59			T.
	Sirius.....	4,0	18,0	31,7	45,9	0,2	14,2	28,2	6.37.46,03				46,30	49,14		6.38.35,50			T.
	Procyon.....	....	....	....	41,2	54,9	8,3	21,4	7.30.41,15				41,52	49,13		7.31.30,77			T.
	Pollux.....	36,7	52,0	7,0	22,3	38,2	53,2	8,4	7.35.22,54				22,83	49,27		7.36.12,08			T.
	ε Hydræ.....	23,5	37,0	50,4	4,1	17,7	31,2	44,8	8.38.4,10				4,46	49,30		8.38.53,77			T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40",344, -26",892, -13",573, -0",060, +13",618, +26",913, +40",337.

(a) Partly without the dark glass. (b) Faint from cloud. (c) The last three wires of 2 L. without the dark glass, but the light was dazzling. The observer noticed some very large spots. (d) 'The north-following and brighter of two.' (e) Observed confusedly at first: wire IV, written down 47,2, has been rejected. (f) 'A brighter lower in the field.' See Feb. 4. (g) 'The north-preceding of two equal objects: good observation.' (h) 'Not quite full.' (i) The observer was delayed at the circle. (k) 'Several large spots on the Sun.' (l) The noted times were 1" less. (m) Much obscured by cloud. (n) Clouds: the observation unsatisfactory. (o) Seen through dense cloud: too ill-defined and unsteady for accurate observation.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h.	m.	s.	
Feb. 21	Regulus	55,6	9,4	23,1	....	50,5	4,8	18,4	9.59.36,96	-1,1	+2,7	-0,5	37,30	49,50	1,31	10. 0. 26,68			T.
	δ Leonis	38,4	52,8	7,2	21,4	36,2	50,4	5,0	11. 5. 21,63				21,95	49,59		11. 6. 11,39			T.
Feb. 22	⊙ 1 L.	24,0	37,7	51,4	5,0	19,0	32,5	46,2	22.19. 5,11				5,39		1,35	22.19. 55,47			T.
	⊙ 2 L.	35,7	49,4	3,1	16,5	30,7	44,2	57,9	22.21. 16,79				17,07			22.22. 7,15			T.
	Rigel	51,3	4,6	18,2	31,8	45,9	59,3	12,5	5. 6. 31,94				32,24	50,47		5. 7. 22,70			T.
	β Tauri	16,0	31,2	46,3	1,7	17,2	32,4	47,6	5. 16. 1,77				2,06	50,54		5. 16. 52,53			T.
	α Orionis	35,2	48,5	2,2	15,3	29,3	43,0	56,4	5. 46. 15,70				16,06	50,48		5. 47. 6,56			T.
	δ Ursæ Min. SP.	7,0	....	36,5	26,3	....	59,0	45,0	6. 19. 25,84				24,59						T.
	Sirius	2,6	16,4	30,6	44,5	58,8	12,6	26,8	6. 37. 44,61				44,88	50,55		6. 38. 35,42			T.
	Castor .....	....	43,2	58,9	14,8	30,9	46,7	....	7. 24. 14,90				15,18	50,62		7. 25. 5,77			T.
	Procyon	59,2	12,4	26,0	39,7	53,4	6,6	20,3	7. 30. 39,66				40,03	50,61		7. 31. 30,62			T.
	ε Hydræ	22,3	35,7	49,2	2,7	16,6	29,9	43,6	8. 38. 2,85				3,21	50,55		8. 38. 53,86			T.
	(a) α Hydræ	45,2	58,8	12,2	25,9	39,6	53,2	6,6	9. 18. 25,93				26,23	50,62		9. 19. 16,92			T.
	Regulus .....	....	8,2	21,9	35,5	49,5	3,4	....	9. 59. 35,70				36,04	50,77		10. 0. 26,77			T.
Feb. 24	(b) H. C. 12483 ....	....	17,9	33,0	48,2	3,9	19,0	....	6. 22. 48,40				48,69		1,36	6. 23. 42,07			B.
	(c) H. C. 12815 ....	....	31,2	46,8	....	....	29,2	....	6. 32. 0,58				0,90			6. 32. 54,29			B.
	(c) Sirius	59,8	13,7	27,6	41,9	55,7	9,8	23,9	6. 37. 41,77				42,04	53,36		6. 38. 35,43			B.
	(c) Metis .....	....	....	....	....	9,1	23,4	37,4	9. 19. 53,50				53,80			9. 20. 47,35			B.
	(d) Regulus .....	....	....	....	....	47,0	0,2	14,1	9. 59. 32,80				33,14	53,67		10. 0. 26,73			B.
	(e) δ Leonis .....	....	48,8	3,1	17,7	32,1	46,6	....	11. 5. 17,66				17,98	53,59		11. 6. 11,63			B.
Feb. 25	(c) ⊙ 2 L. ....	....	9,0	22,1	36,1	50,1	3,7	....	22. 32. 36,20				36,48			22. 33. 30,78			B.
Feb. 26	(f) ⊙ 1 L. ....	....	....	....	....	24,1	37,2	51,0	22. 34. 10,08				10,36		1,40	22. 35. 6,01			B.
	⊙ 2 L.	40,3	54,0	7,7	21,1	35,0	48,6	2,1	22. 36. 21,25				21,53			22. 37. 17,18			B.
	β Tauri .....	....	25,7	40,8	56,2	11,7	27,0	....	5. 15. 56,28				56,57	55,96					B.
	(g) Metis	25,0	39,9	54,8	....	....	....	....	9. 18. 9,70				10,00			9. 19. 6,27			B.
	(e) Regulus	49,0	2,4	16,0	29,8	43,9	57,8	11,7	9. 59. 30,09				30,43	56,39					B.
Feb. 27	(h) ⊙ 1 L.	14,0	27,6	....	55,0	8,8	22,1	....	22. 37. 54,93				55,23			22. 38. 52,28			B.
	⊙ 2 L. ....	....	....	52,1	6,0	19,8	33,0	....	22. 40. 5,91				6,21			22. 41. 3,27			B.
Feb. 28	(i) H. C. 12262	44,5	58,5	12,8	27,1	41,7	55,4	9,8	6. 16. 27,12			+0,3	27,48		1,42	6. 17. 26,44			B.
	(k) H. C. 12396	27,4	41,7	55,9	9,8	24,1	38,0	52,1	6. 20. 9,86				10,22			6. 21. 9,18			B.
	(h) 22 Geminorum ..	10,1	24,1	38,0	52,7	7,1	21,0	35,3	6. 24. 52,61				52,96			6. 25. 51,93			B.
	H. C. 12650	33,7	47,8	2,0	16,1	30,3	44,7	59,0	6. 27. 16,23				16,59			6. 28. 15,56			B.
	Sirius	54,1	7,8	21,8	36,2	50,2	4,1	18,0	6. 37. 36,03				36,35	58,98					B.
	Bessel VIII. 1344 ..	18,2	32,1	45,9	59,8	13,9	27,7	41,5	8. 50. 59,88				0,26			8. 51. 59,37			B.
	Bessel VIII. 1441 ..	40,9	54,4	8,1	22,0	36,0	49,8	3,3	8. 55. 22,07				22,45			8. 56. 21,57			B.
	H. C. 17999	13,2	27,1	41,0	55,0	9,1	23,0	36,9	8. 58. 55,04				55,42			8. 59. 54,54			B.
Mar. 1	Procyon	49,0	2,8	15,9	29,7	43,4	56,8	10,0	7. 30. 29,66			+2,8	30,07	60,49	1,45	7. 31. 30,51			B.
	Pollux .....	....	....	55,8	11,1	26,7	42,0	57,1	7. 35. 11,25				11,57	60,44		7. 36. 12,02			B.
	(h) Metis	59,7	14,6	....	....	59,2	14,1	29,0	9. 15. 44,30				44,63			9. 16. 45,18			B.
	α Hydræ .....	....	....	....	....	29,7	43,1	56,8	9. 19. 15,97				16,32	60,51		9. 20. 16,87			B.
Mar. 4	(l) ⊙ 1 L.	50,0	3,4	17,0	30,7	44,6	57,8	11,3	22. 56. 30,68				31,03		1,46	22. 57. 35,65			B.
	⊙ 2 L.	0,1	14,0	27,2	41,0	54,7	8,2	22,0	22. 58. 41,03				41,38			22. 59. 46,00			B.
	(f) α Andromedæ ...	49,2	4,7	20,0	35,0	50,7	5,8	21,1	23. 59. 35,22				35,54	64,65		0. 0. 40,22			B.
	(m) Polaris .....	....	....	57,0	41,0	27,0	3,5	....	1. 3. 42,05				44,41						B.
	α Orionis	20,2	33,9	47,2	1,1	14,7	28,2	41,4	5. 46. 0,95				1,35	65,03		5. 47. 6,38			B.
	(n) B.A.C. 2658	17,9	32,0	46,1	0,2	15,1	29,1	43,0	7. 51. 0,48				0,85			7. 52. 6,01			B.
	H. C. 15703	9,6	23,2	37,3	51,8	6,0	20,0	34,0	7. 53. 51,70				52,08			7. 54. 57,24			B.
	(o) H. C. 15834	47,0	1,0	14,8	28,8	43,0	56,9	10,8	7. 57. 28,90				29,27			7. 58. 34,43			B.
	H. C. 15939	58,2	12,1	26,0	40,0	54,1	8,0	21,8	8. 0. 40,02				40,40			8. 1. 45,57			B.
	B.A.C. 2748 ....	....	29,1	42,8	57,0	10,9	24,7	....	8. 2. 56,90				57,28			8. 4. 2,45			B.
	H. C. 16099	24,0	38,7	53,0	7,2	22,0	36,2	51,0	8. 5. 7,45				7,81			8. 6. 12,98			B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

(a) Scarcely visible, so much clouded. (b) 'A fainter of nearly the same N.P.D. follows 14°.' (c) Very cloudy. (d) 'Diminished by cloud to a star of Mag. 10.' (e) Bad definition. (f) Cumuli passing. (g) Hid by cloud after wire III. (h) Cloud. (i) Clouds clearing off: the star faint at times. (k) 'One of the same magnitude preceded considerably lower in the field.' (l) Tremor. (m) 'Pretty good.' (n) 'A very faint star of greater N.P.D. follows.' (o) 'A fainter follows by about 5°.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h. m. s.	
Mar. 4	(a) H. C. 16258.....	52,5	7,0	21,1	35,9	50,8	5,0	19,5	8. 9. 35,97	-1,1	+2,8	+0,3	36,32		1,46	8. 10. 41,49	B.
	H. C. 16364.....	....	3,1	16,7	30,3	44,3	58,0	....	8. 12. 30,48				30,87			8. 13. 36,05	B.
	Bessel VIII. 415..	15,9	29,6	43,2	57,1	11,2	25,0	38,9	8. 14. 57,27				57,66			8. 16. 2,84	B.
	H. C. 16596.....	48,1	2,2	16,1	30,3	44,7	58,7	12,6	8. 18. 30,38				30,75			8. 19. 35,93	B.
	ε Hydræ.....	7,4	20,9	34,3	48,0	1,9	15,1	28,4	8. 37. 48,00				48,40	65,30		8. 38. 53,60	B.
	Bessel VIII. 1072.	37,2	51,0	4,6	18,6	32,7	46,0	0,0	8. 40. 18,59				18,98			8. 41. 21,19	B.
	Bessel VIII. 1134.	2,0	15,7	29,2	43,2	57,3	11,1	25,0	8. 42. 43,36				43,75			8. 43. 48,96	B.
	(b) Metis.....	48,4	3,3	18,2	33,1	48,2	3,1	18,1	9. 13. 33,20				33,52			9. 14. 38,76	B.
	α Hydræ.....	30,5	44,1	57,6	11,2	25,0	38,7	52,1	9. 19. 11,31				11,66	65,16		9. 20. 16,91	B.
Mar. 6	(c) H. C. 16258.....	....	4,1	18,5	32,9	47,7	2,1	....	8. 9. 33,06				33,41		1,39	8. 10. 41,34	B.
	(d) H. C. 16379.....	21,1	....	47,6	....	....	....	44,9	8. 13. 2,54				2,93			8. 14. 10,86	B.
	(f) H. C. 16554.....	46,1	1,0	15,4	30,1	45,1	59,7	14,1	8. 17. 30,21				30,55			8. 18. 33,49	B.
	(g) Bessel VIII. 583..	....	54,0	7,3	....	35,4	49,1	3,1	8. 21. 21,42				21,80			8. 22. 29,74	B.
	ε Hydræ.....	....	18,1	31,2	45,2	59,0	12,2	25,7	8. 37. 45,13				45,53	68,15		8. 38. 53,49	B.
	Bessel VIII. 1072.	....	48,1	2,0	15,8	29,8	43,1	....	8. 40. 15,76				16,15			8. 41. 24,11	B.
	(h) Bessel VIII. 1134.	53,2	12,8	....	40,1	54,6	8,1	22,0	8. 42. 40,30				40,69			8. 43. 48,65	B.
	Bessel VIII. 1210.	....	57,1	10,9	24,9	39,1	52,7	....	8. 45. 24,94				25,33			8. 46. 33,29	B.
	Bessel VIII. 1287.	56,1	10,0	23,4	37,2	51,2	4,9	18,6	8. 48. 37,35				37,74			8. 49. 45,71	B.
	(i) Bessel VIII. 1299.	21,0	34,9	48,1	2,0	16,0	29,6	43,1	8. 49. 2,10				2,49			8. 50. 10,46	B.
	H. C. 17801.....	57,7	11,6	25,2	39,1	53,4	7,2	21,1	8. 52. 39,33				39,71			8. 53. 47,69	B.
	B.A.C. 3103.....	4,0	17,9	32,0	46,3	0,8	14,6	28,8	8. 56. 46,34				46,71			8. 57. 54,69	B.
	Bessel VIII. 1552.	30,2	44,2	58,2	12,0	26,0	40,0	53,7	9. 0. 12,04				12,43			9. 1. 20,41	B.
	(k) Metis.....	30,1	45,0	0,0	14,8	29,8	44,6	59,2	9. 12. 14,79				15,11			9. 13. 23,10	B.
	α Hydræ.....	27,9	41,2	54,9	8,7	22,2	35,8	49,1	9. 19. 8,55				8,90	67,91		9. 20. 16,90	B.
	Regulus.....	37,1	50,9	4,5	18,4	32,4	46,1	0,0	9. 59. 18,49				18,88	67,94		10. 0. 26,92	B.
Mar. 11	β Tauri.....	51,1	6,8	21,8	37,1	52,7	7,7	23,0	5. 15. 37,17		+2,1	-0,5	37,42	74,85	1,41	5. 16. 52,35	B.
	ζ Tauri.....	46,0	0,1	14,5	29,0	43,9	58,0	12,2	5. 27. 29,10				29,38			5. 28. 44,32	B.
	γ 1 L.....	5,2	20,0	34,7	49,2	4,3	19,0	33,7	6. 4. 49,45				49,74			6. 6. 4,72	B.
	μ Geminorum....	57,9	12,3	26,9	41,2	56,2	10,8	25,1	6. 12. 41,48				41,75			6. 13. 56,73	B.
	ν Geminorum....	8,8	23,0	37,1	51,8	6,2	20,6	34,9	6. 18. 51,77				52,06			6. 20. 7,05	B.
	(l) Sirius.....	37,8	51,7	5,7	19,8	34,2	48,0	2,0	6. 37. 19,89				20,15	74,99		6. 38. 35,16	B.
	H. C. 13125.....	....	2,4	17,2	32,2	47,5	2,2	....	6. 40. 32,30				32,55			6. 41. 47,56	B.
	H. C. 16332.....	4,1	18,8	33,2	48,2	2,9	17,2	32,0	8. 11. 48,06				48,33			8. 13. 3,43	B.
	Bessel VIII. 415..	6,0	19,8	33,2	47,2	1,7	15,0	29,0	8. 14. 47,42				47,74			8. 16. 2,84	B.
	(m) H. C. 16554.....	....	54,1	8,3	23,1	38,0	53,0	....	8. 17. 23,30				23,57			8. 18. 38,68	B.
	(n) Bessel VIII. 586..	34,2	48,2	2,0	16,0	....	44,0	....	8. 21. 16,04				16,35			8. 22. 31,46	B.
	35 Cancri.....	....	1,8	16,0	30,2	45,0	59,2	....	8. 25. 30,44				30,73			8. 26. 45,84	B.
	H. C. 16964.....	0,0	15,0	29,3	44,2	59,2	13,9	28,6	8. 28. 44,31				44,58			8. 29. 59,70	B.
	B.A.C. 2931.....	18,7	32,9	47,0	1,4	16,0	30,2	44,6	8. 32. 1,54				1,83			8. 33. 16,95	B.
	Bessel VIII. 936..	....	55,0	9,0	22,8	36,9	50,3	....	8. 34. 22,80				23,12			8. 35. 38,24	B.
	ε Hydræ.....	57,6	11,1	24,7	38,2	51,9	5,2	18,8	8. 37. 38,22				38,55	75,09		8. 38. 53,68	B.
	Bessel VIII. 1299.	....	27,7	41,3	55,2	9,2	22,7	....	8. 48. 55,22				55,54			8. 50. 10,68	B.
	H. C. 17801.....	50,9	4,6	18,2	32,2	46,8	0,2	14,1	8. 52. 32,43				32,74			8. 53. 47,88	B.
	B.A.C. 3095.....	34,9	48,7	2,1	16,0	30,0	43,5	57,1	8. 55. 16,04				16,56			8. 56. 31,50	B.
	(o) H. C. 17999.....	57,1	11,2	25,0	39,2	53,1	6,9	21,0	8. 58. 39,08				39,39			8. 59. 54,54	B.
	Bessel IX. 127....	39,3	53,0	6,6	20,5	34,4	48,2	1,9	9. 5. 20,55				20,87			9. 6. 56,02	B.
	Metis.....	46,7	1,8	16,2	31,3	46,6	1,2	16,1	9. 9. 31,41				31,66			9. 10. 46,82	B.
	H. C. 18454.....	30,0	44,1	58,2	12,5	27,0	40,9	55,0	9. 13. 12,53				12,83			9. 14. 27,99	B.
	Bessel IX. 359....	14,5	28,6	42,2	56,2	10,1	24,1	38,1	9. 15. 56,26				56,57			9. 17. 11,73	B.
	α Hydræ.....	20,3	34,0	47,2	1,2	15,0	28,6	42,0	9. 19. 1,18				1,46	75,32		9. 20. 16,63	B.
	(p) δ Leonis.....	13,0	27,1	41,5	56,0	10,9	25,0	39,6	11. 4. 56,16				56,44	75,24		11. 6. 11,71	B.
Mar. 13	⊙ 1 L.....	51,2	4,7	17,8	31,7	45,3	58,8	12,2	23. 30. 31,67				31,98		1,22	23. 30. 49,48	B.
	⊙ 2 L.....	0,6	14,2	27,6	41,1	54,9	8,2	21,9	23. 32. 41,21				41,52			23. 32. 59,02	B.
	(b)(g) Polaris.....	25,0	....	....	24,5	13,8	49,0	31,0	1. 4. 27,88				30,00			1. 4. 47,58	B.
	α Orionis.....	7,6	20,9	34,4	48,0	2,0	15,1	28,8	5. 46. 48,12				48,45	17,77		5. 47. 6,26	B.
	(d) γ 1 L.....	57,4	....	....	41,9	....	10,9	....	8. 11. 41,60				41,89			8. 11. 59,83	B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^s,344$, $-26^s,892$, $-13^s,573$, $-0^s,060$, $+13^s,618$, $+26^s,913$, $+40^s,337$.

March 12, 22^h, Hardy was put forward 1^m. The hand moved very stiffly, and the rate appears to have been altered.

(a) 'A fainter of greater N.P.D. precedes by about 10^s.' (b) 'Good.' (c) The evening had been cloudy. (d) Cloudy. (e) 'One of Mag. 8 and greater N.P.D. preceded.' (f) 'Coarsely double: the companion of Mag. 9.10 and southward.' (g) 'A fainter higher up,' viz. Bessel VIII. 586. (h) 'Two others south-following.' (i) 'Of the same magnitude as the preceding and of less N.P.D.' (k) 'Good.' The Planet was considered to be of Mag. 9. (l) A large and ill-defined mass of light. (m) 'Coarsely double: the companion south-following.' (n) 'Faint: the most southern of three.' (o) 'A fainter preceding.' (p) Bad definition. (q) Clouds passing.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		"	"	"					
Mar. 13	β Corvi.....	33,1	47,8	2,2	16,9	31,6	46,1	0,6	12.26.16,90	-1,1	+2,1	-0,5	17,16	18,17	1,22	12.26.35,31	B.
	(a) Polaris SP.....	25,0	8,5	47,0	....	13,0	52,0	....	13.4.29,83				27,74			1.4.45,92	B.
	(b) Spica.....	22,2	36,1	....	3,3	....	30,9	44,3	13.17.3,38				3,64	18,20		13.17.21,83	B.
Mar. 14	(a) Polaris.....	22,0	4,5	39,5	19,5	....	42,3	25,7	1.4.23,24			+2,3	25,78		1,25	1.4.44,57	B.
	Sirius.....	33,6	47,7	1,7	15,7	30,2	43,8	57,8	6.38.15,79				16,05	19,03		6.38.35,12	B.
	(c) H. C. 15528	5,8	20,2	33,7	49,3	3,4	18,1	32,6	7.49.49,02				49,31			7.50.8,45	B.
	H. C. 15703	55,3	9,7	23,3	37,7	52,0	5,9	20,0	7.54.37,70				38,01			7.54.57,15	B.
	H. C. 15834	33,0	46,9	0,8	15,0	29,0	42,7	56,8	7.58.14,89				15,20			7.58.34,35	B.
	H. C. 15939	44,1	58,0	12,0	25,9	40,0	53,9	7,8	8.1.25,96				26,28			8.1.45,43	B.
	(d) B.A.C. 2748	1,1	15,1	28,7	42,8	56,8	10,4	24,3	8.3.42,75				43,07			8.4.2,22	B.
	H. C. 16172	30,0	44,8	59,0	13,2	28,1	42,5	57,0	8.8.13,51				13,80			8.8.32,95	B.
	H. C. 16332	0,1	14,9	29,1	44,0	59,0	13,3	28,0	8.12.44,06				44,34			8.13.3,50	B.
	Bessel VIII. 415..	1,7	15,6	29,2	43,1	57,1	11,0	24,9	8.15.43,23				43,56			8.16.2,72	B.
	(b) Bessel VIII. 811..	2,2	16,0	29,9	43,8	56,9	11,3	25,2	8.30.43,61				43,94			8.31.3,11	B.
	(b) δ Cancri.....	....	25,3	39,6	54,0	8,1	22,2	....	8.35.53,84				54,15			8.36.13,33	B.
	(e) ϵ Hydræ.....	53,1	7,0	20,3	34,0	47,9	1,0	14,8	8.38.34,01				34,35	19,26		8.38.53,53	B.
	α Cancri.....	19,9	33,8	47,0	1,1	15,0	28,8	42,6	8.50.1,17				1,50			8.50.20,69	B.
	(e) δ 1 L.....	46,7	1,0	15,2	30,0	44,6	59,1	13,6	9.15.30,02				30,33			9.15.49,54	B.
	(b)(f) α Hydræ.....	16,4	30,0	43,5	56,8	11,1	24,6	38,0	9.19.57,20				57,48	19,27		9.20.16,69	B.
	(b) Regulus.....	26,0	39,8	53,2	7,2	21,5	35,0	48,8	10.0.7,33				7,65	19,15		10.0.26,90	B.
	γ Leonis. np.....	43,4	57,9	12,0	26,5	41,0	55,2	9,8	10.11.26,54				26,83			10.11.46,09	B.
Mar. 18	Sirius.....	27,7	42,0	55,8	10,1	24,2	38,2	52,1	6.38.10,01			-0,4	10,28	24,73	1,29	6.38.34,87	B.
	Metis.....	....	....	....	5,0	20,0	34,9	49,8	9.8.5,07				5,35			9.8.30,07	B.
	H. C. 18454.....	20,3	34,8	48,9	3,0	17,4	31,5	45,6	9.14.3,07				3,38			9.14.28,10	B.
	Bessel IX. 359....	5,1	19,1	33,0	47,0	1,0	14,9	28,8	9.16.46,99				47,31			9.17.12,04	B.
	α Hydræ.....	11,0	24,7	38,1	51,8	5,6	19,2	32,4	9.19.51,83				52,12	24,60		9.20.16,85	B.
	(g) Bessel IX. 591....	....	8,8	22,8	36,4	50,7	4,6	....	9.26.36,66				36,98			9.27.1,72	B.
	(h) B.A.C. 3299.....	5,8	19,6	33,6	47,2	1,3	15,1	29,0	9.30.47,37				47,70			9.31.12,44	B.
	H. C. 19036.....	58,3	12,3	26,5	40,9	55,0	9,0	23,1	9.33.40,72				41,03			9.34.5,78	B.
	H. C. 19162.....	26,0	40,1	54,0	8,3	23,0	37,0	51,1	9.38.8,50				8,81			9.38.33,56	B.
	21 Leonis.....	42,4	56,1	9,9	23,9	37,8	51,1	5,0	9.42.23,74				24,07			9.42.48,82	B.
	(i) Bessel IX. 1011..	42,0	55,7	9,0	22,8	36,7	50,0	3,3	9.46.22,78				23,13			9.46.47,89	B.
	Regulus.....	20,3	34,2	47,8	1,6	15,8	29,2	43,0	10.0.1,70				2,03	24,75		10.0.26,80	B.
	β Leonis.....	21,2	35,3	49,2	3,4	17,3	31,1	45,2	11.41.3,24				3,56	24,84		11.41.28,42	B.
	β Corvi.....	26,5	41,1	55,3	10,2	25,0	39,3	54,0	12.26.10,20				10,47	24,91		12.26.35,37	B.
	γ Virginis.....	2,1	15,8	29,0	42,6	56,1	9,5	23,0	12.33.42,58				42,92			12.34.7,83	B.
	δ Virginis.....	1,1	14,9	28,0	41,8	55,3	8,7	22,1	12.47.41,70				42,05			12.48.6,97	B.
	(k) Spica.....	15,4	29,2	42,9	56,6	10,6	24,2	37,7	13.16.56,66				56,93	24,98		13.17.21,87	B.
	δ 2 L.....	....	....	0,0	14,0	28,0	41,8	55,4	13.18.13,96				14,28			13.18.39,22	B.
Mar. 20	\odot 1 L.....	15,3	29,0	42,0	55,7	9,4	22,9	36,2	23.55.55,79				56,13		1,32	23.56.22,85	B.
	\odot 2 L.....	24,1	37,9	51,0	4,9	18,3	32,0	45,2	23.58.4,77				5,11			23.58.31,83	B.
	α Andromedæ....	....	....	....	....	28,8	43,9	59,0	0.0.13,30				13,56	26,65		0.0.40,28	B.
	(l) Polaris.....	11,5	51,5	30,0	11,0	0,5	....	....	1.4.13,01				15,40			1.4.42,18	B.
	Pollux.....	....	13,8	29,0	44,2	59,8	15,0	....	7.35.44,36				44,62	27,09		7.36.11,76	B.
	Metis.....	56,3	11,2	25,9	40,7	56,0	10,7	25,4	9.7.40,88				41,16			9.8.8,38	B.
	α Hydræ.....	8,3	22,1	35,3	49,0	3,0	16,3	30,0	9.19.49,15				49,44	27,26		9.20.16,67	B.
	H. C. 18995 ....	....	....	8,7	23,0	37,2	51,3	5,6	9.32.22,97				23,28			9.32.50,52	B.
	ψ Leonis.....	28,0	42,0	55,8	9,9	24,0	37,8	51,6	9.35.9,88				10,20			9.35.37,45	B.
	18 Leonis.....	....	27,1	40,7	54,4	8,6	22,0	....	9.37.54,56				54,89			9.38.22,14	B.
	H. C. 19239.....	50,9	4,9	18,6	32,7	46,9	0,6	14,5	9.40.32,73				33,05			9.41.0,30	B.
	Bessel IX. 963....	10,8	24,2	37,8	51,3	5,2	18,8	32,4	9.43.51,50				51,84			9.44.19,09	B.
	Bessel IX. 1017..	54,1	7,6	21,1	34,6	48,5	2,0	15,3	9.46.34,74				35,09			9.47.2,35	B.
	Regulus.....	17,7	31,6	45,2	59,2	13,2	26,8	40,6	9.59.59,19				59,52	27,25		10.0.26,79	B.
	δ Leonis.....	....	....	29,4	44,1	58,7	13,2	27,3	11.5.44,10				44,40	27,30		11.6.11,73	B.
	(m) Bessel XII. 388 ..	25,0	38,3	51,4	5,0	18,3	31,7	44,9	12.23.4,94				5,28			12.23.32,68	B.
	β Corvi.....	....	....	....	7,6	22,3	36,9	51,2	12.26.7,62				7,89	27,51		12.26.35,29	B.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40",344, -26",892, -13",573, -0",060, +13",618, +26",913, +40",337.

(a) 'Good.' (b) Cloudy. (c) Very faint at intervals from misty cloud. (d) 'One of Mag. 9 north-preceding.' (e) Faint from cloud.
 (f) Reduced by cloud to Mag. 9. (g) 'Another north-following,' viz. Bessel IX. 593. (h) 'A very faint star precedes.' (i) 'One of less N.P.D. follows by about 15.' (k) Bad definition. (l) Very unsteady at wire V: afterwards hid by cloud. (m) 'Another of greater N.P.D.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h.	m.	s.	
Mar. 20	(a) Bessel XII. 523 ..	15,3	29,1	42,3	56,1	9,8	23,1	36,8	12.30.56,07	-1,1	+2,3	-0,4	56,36		1,32	12.31.23,77			B.
	(b) Bessel XII. 562 ..	....	47,9	1,1	15,0	28,2	....	55,4	12.33.14,81				15,10			12.33.42,51			B.
	(c) Polaris SP.....	17,0	55,5	29,5	22,0	....	....	....	13.4.17,01				14,69			1.4.42,13			B.
Mar. 21	(d) ☉ 1 L.....	52,3	6,0	19,2	32,9	46,4	59,9	13,2	23.59.32,84				33,18		1,30	0.0.1,28			B.
	☉ 2 L.....	1,1	14,7	28,2	41,6	55,3	8,7	22,1	0.1.41,67				42,01			0.2.10,11			B.
	(e) Metis.....	....	2,2	16,3	31,9	46,8	0,7	16,0	9.7.31,54				31,82			9.8.0,41			B.
	α Hydræ.....	7,2	20,7	34,2	47,9	1,7	15,1	28,8	9.19.47,95				48,24	28,45					B.
	β Leonis.....	17,3	31,3	45,0	59,2	13,3	27,2	41,1	11.40.59,20				59,52	28,89					B.
Mar. 22	(f) Castor.....	47,9	3,7	19,5	35,6	51,6	7,4	23,2	7.24.35,56		+2,8		35,85	29,51	1,24	7.25.5,36			T.
	ε Hydræ.....	42,8	56,4	9,8	23,4	37,3	50,6	4,2	8.38.23,50				23,87	29,64		8.38.53,44			T.
	Metis.....	40,6	55,2	10,0	24,9	40,2	55,0	9,7	9.7.25,09				25,40			9.7.55,00			T.
	α Hydræ.....	6,1	19,5	33,3	46,6	0,6	14,0	27,5	9.19.46,80				47,11	29,57		9.20.16,72			T.
Mar. 26	α Hydræ.....	1,2	14,6	28,1	41,6	55,4	8,9	22,4	9.19.41,74				42,05	34,58	1,29	9.20.16,62			T.
	H. C. 18861.....	49,5	3,6	17,8	32,2	46,7	0,8	15,2	9.27.32,25				32,58			9.28.7,16			T.
	B.A.C. 3299.....	55,8	9,6	23,4	37,4	51,4	5,2	18,9	9.30.37,39				37,75			9.31.12,33			T.
	H. C. 19036.....	48,6	2,5	16,5	30,6	45,1	59,0	13,2	9.33.30,78				31,12			9.34.5,70			T.
	Bessel IX. 808...	36,8	50,6	4,0	17,5	31,4	44,7	58,2	9.36.17,60				17,97			9.36.52,56			T.
	Bessel IX. 872...	29,2	43,2	56,7	10,6	24,9	38,4	52,5	9.39.10,78				11,14			9.39.45,73			T.
	(g) H. C. 19442....	15,4	29,5	43,1	57,0	11,3	25,0	39,0	9.47.57,19				57,54			9.48.32,14			T.
	Bessel IX. 1118...	40,3	53,8	7,3	20,6	34,6	47,8	1,4	9.51.20,83				21,21			9.51.55,81			T.
	H. C. 19589.....	....	....	17,2	31,2	45,2	58,6	12,8	9.53.31,16				31,52			9.54.6,12			T.
	(h) Bessel IX. 1221..	....	25,4	39,0	52,6	6,6	20,2	....	9.55.52,76				53,13			9.56.27,73			T.
	Regulus.....	10,4	24,3	38,0	51,5	5,6	19,3	33,2	9.59.51,75				52,10	34,62		10.0.26,71			T.
	β Leonis.....	11,5	25,4	39,4	53,4	7,5	21,4	35,3	11.40.53,41				53,76	34,66		11.41.28,46			T.
	β Corvi.....	16,6	31,4	45,7	0,5	15,2	29,5	44,2	12.26.0,44				0,72	34,72		12.26.35,46			T.
Mar. 27	ε Hydræ.....	36,4	50,2	3,6	17,2	50,7	44,4	57,7	8.38.17,17				17,54	35,90	1,31				T.
Mar. 28	(i) ☉ 1 L.....	10,2	24,0	37,4	50,8	....	....	....	0.24.50,89				51,26		1,22	0.25.27,98			T.
	☉ 2 L.....	19,1	32,6	46,0	59,6	13,4	26,7	40,1	0.26.59,65				0,02			0.27.36,74			T.
	(k) ε Hydræ.....	35,2	48,7	2,3	15,7	29,4	43,2	56,5	8.38.15,86				16,23	37,20		8.38.53,37			T.
	(l) Metis.....	....	53,2	8,2	23,2	38,2	53,0	7,9	9.7.23,20				23,51			9.8.0,67			T.
	(m) δ Leonis.....	50,5	5,4	19,6	34,1	48,5	3,1	17,3	11.5.34,07				34,40	37,28		11.6.11,66			T.
	(m) β Leonis.....	....	23,0	36,8	50,5	5,2	18,8	....	11.40.50,86				51,21	37,21		11.41.28,50			T.
Mar. 29	(n) ☉ 1 L.....	....	0,6	14,0	27,7	41,3	54,6	....	0.28.27,64				28,01		1,27	0.29.5,89			T.
	☉ 2 L.....	55,9	9,5	22,8	36,4	50,1	3,6	16,9	0.30.36,46				36,83			0.31.14,71			T.
	(k) Regulus.....	6,6	20,3	34,2	47,7	2,0	15,6	29,5	9.59.47,99				48,34	38,36					T.
	(i)(n)δ Leonis.....	49,4	4,1	....	....	....	1,7	16,4	11.5.32,90				33,23	38,45					T.
Mar. 31	ε Hydræ.....	....	44,4	58,2	11,7	25,5	39,1	....	8.38.11,78		+2,3	+0,6	12,17	41,21	1,51				T.
Apr. 1	☉ 2 L.....	46,2	59,9	13,3	27,0	40,6	54,0	7,5	0.41.26,93				27,33		1,47	0.42.9,58			T.
	ε Hydræ.....	29,5	43,2	56,5	10,2	24,1	37,4	50,8	8.38.10,24				10,63	42,74					T.
Apr. 4	Bessel x. 1058...	9,2	22,3	35,6	49,2	3,0	16,3	29,8	10.57.49,35				49,75		1,40	10.58.36,62			T.
	p ⁴ Leonis.....	10,4	24,2	37,4	50,7	4,7	18,1	31,4	11.0.50,98				51,37			11.1.38,24			T.
	δ Leonis.....	41,2	55,4	10,0	24,3	39,0	53,5	7,4	11.5.24,40				24,73	46,92					T.
	Bessel XI. 142...	41,2	54,5	7,7	21,2	35,2	48,3	2,0	11.8.21,44				21,83			11.9.8,71			T.
	Bessel XI. 206...	50,5	3,9	17,2	30,8	44,5	57,9	11,2	11.12.30,85				31,25			11.13.18,13			T.
	(i) Bessel XI. 295...	14,2	27,4	41,0	54,8	8,6	22,0	35,5	11.16.54,79				55,18			11.17.42,07			T.
	β Leonis.....	59,4	13,2	26,9	41,2	55,2	9,2	23,1	11.40.41,17				41,54	46,87					T.
Apr. 5	(o) Procyon.....	....	....	28,0	41,6	55,4	8,3	22,2	7.30.41,59				41,99	48,02	1,51	7.31.30,07			T.
	Pollux.....	37,1	52,4	7,4	23,0	38,2	53,6	8,8	7.35.22,93				23,22	48,18		7.36.11,31			T.
	(p) ε Hydræ.....	24,1	37,4	51,0	4,5	18,5	32,0	45,4	8.38.4,70				5,09	48,22		8.38.53,24			T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40^s.344, -26^s.892, -13^s.573, -0^s.060, +13^s.618 +26^s.913, +40^s.337.

(a) 'A brighter of greater N.P.D.' (b) Faint from cloud. 'A brighter south-following.' (c) Not well defined. (d) High wind.
 (e) 'The north-preceding and fainter of two objects a little apart.' (f) In estimating the Clock's rate for this day, B is assumed to observe earlier than T by 0^s.3. (g) 'The brightest and most southern of three.' (h) 'One of equal magnitude south-preceding.' (i) Cloudy. (k) Faint from cloud.
 (l) Wire IV has been increased 1^s. The Planet was extremely faint and difficult to observe, the sky being still cloudy. (m) Much obscured by cloud.
 (n) The observer thought the counting was 1^s fast: alteration made accordingly. (o) Clouded till wire III; then flaring and badly defined. (p) The last three wires have been diminished 1^s, the observer was confused at wire V.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Apr. 5	(a) Metis.....	19,0	33,7	48,5	....	18,5	33,0	47,3	9. 9. 3,32	-1,1	+2,3	+0,6	3,64		1,51	9. 9. 51,82			T.
	α Hydræ.....	47,2	0,6	14,2	28,1	41,6	55,2	8,8	9. 19. 27,96				28,31	48,20		9. 20. 16,50			T.
	(b) * N.P.D. 64°. 56'.	23,0	37,7	52,3	7,5	....	37,2	52,0	9. 22. 7,46				7,77			9. 22. 55,97			T.
	Bessel x. 821....	....	43,2	56,6	10,2	24,0	37,2	....	10. 44. 10,24				10,64			10. 44. 58,92			T.
	H. C. 21015....	42,2	55,9	9,2	22,9	36,8	50,2	3,8	10. 47. 23,00				23,40			10. 48. 11,69			T.
	Bessel x. 938....	24,2	37,6	51,2	4,6	18,3	31,7	45,2	10. 51. 4,69				5,09			10. 51. 53,38			T.
	Bessel x. 988....	....	36,0	49,3	3,2	16,9	30,6	....	10. 54. 3,20				3,59			10. 54. 51,88			T.
	Bessel x. 1058....	7,3	21,2	34,4	48,0	1,6	14,9	28,2	10. 57. 47,95				48,35			10. 58. 36,65			T.
	Bessel x. 1100....	....	28,2	41,8	55,4	9,2	22,6	....	10. 59. 55,44				55,84			11. 0. 44,14			T.
	Bessel xi. 42....	12,5	25,9	39,3	52,9	6,6	19,7	33,0	11. 2. 52,84				53,24			11. 3. 41,54			T.
	δ Leonis.....	39,6	54,9	8,4	22,9	37,8	51,8	6,4	11. 5. 22,98				23,31	48,34		11. 6. 11,62			T.
	Bessel xi. 142....	....	52,9	6,3	19,7	33,6	46,9	....	11. 8. 19,88				20,27			11. 9. 8,58			T.
	Bessel xi. 232....	....	34,0	47,2	0,9	14,6	27,9	....	11. 13. 0,92				1,31			11. 13. 49,62			T.
	β Leonis.....	57,9	11,6	25,6	39,7	54,2	7,6	21,7	11. 40. 39,76				40,13	48,28		11. 41. 28,48			T.
	β Corvi.....	3,3	17,6	32,3	46,6	1,4	16,0	30,4	12. 25. 46,80				47,14	48,34		12. 26. 35,53			T.
	Polaris SP.....	....	35,0	7,5	57,0	36,0	12,5	....	13. 3. 53,65				52,96						T.
	Spica.....	52,4	6,2	19,5	33,2	47,0	0,8	14,4	13. 16. 33,36				33,69	48,42		13. 17. 22,18			T.
Apr. 6	α Hydræ.....	45,6	59,2	12,6	26,2	40,2	53,4	7,1	9. 19. 26,33				26,68	49,81	1,60				T.
	Regulus.....	55,0	8,4	22,3	36,2	50,5	4,0	13,1	9. 59. 36,36				36,73	49,89					T.
Apr. 7	(b) α Hydræ.....	44,3	57,6	....	....	38,2	....	....	9. 19. 24,75				25,10	51,38	1,50				T.
Apr. 8	(b) ☉ 1 L.....	....	....	26,0	39,3	53,2	....	....	1. 4. 39,51				39,90			1. 5. 32,27			T.
	☉ 2 L.....	....	....	35,0	....	2,2	15,9	29,4	1. 6. 48,63				49,02			1. 7. 41,39			T.
Apr. 9	(h)(c) δ Geminorum ..	....	....	....	....	33,4	47,8	2,2	7. 10. 18,69			+2,5	+1,8	19,07	54,01	1,32			T.
	(d)) 1 L.....	49,0	4,0	18,6	33,5	48,5	3,2	17,7	7. 47. 33,50				33,90			7. 48. 27,94			T.
Apr. 11	(e) Metis.....	46,1	0,2	14,7	29,3	....	59,8	14,1	9. 11. 29,85				30,22		1,45	9. 12. 26,83			T.
	α Hydræ.....	38,3	52,2	5,6	19,4	33,2	46,5	0,2	9. 19. 19,35				19,78	56,65		9. 20. 16,39			T.
	ξ Leonis.....	16,5	30,4	44,1	58,0	11,8	25,4	39,2	9. 22. 57,92				58,36			9. 23. 54,98			T.
	) 1 L.....	39,7	54,2	8,2	22,3	37,1	51,2	5,5	9. 50. 22,60				23,03			9. 51. 19,67			T.
	(b) Regulus.....	48,2	1,7	15,4	29,4	43,5	57,2	10,7	9. 59. 29,45				29,89	56,67		10. 0. 26,54			T.
	ρ Leonis.....	20,3	34,1	47,4	1,4	15,2	28,6	42,4	10. 24. 1,34				1,79			10. 24. 58,47			T.
	β Leonis.....	....	....	17,2	....	45,3	59,2	13,2	11. 40. 31,28				31,71	56,69		11. 41. 28,48			T.
Apr. 12	(f) Metis.....	16,2	30,9	45,2	0,1	15,3	30,0	44,5	9. 12. 0,31				0,68		1,48	9. 12. 58,78			T.
	α Hydræ.....	....	....	4,3	17,9	31,6	45,2	58,6	9. 19. 17,94				18,36	58,05		9. 20. 16,46			T.
	* N.P.D. 64°. 56'	13,1	27,9	42,6	57,4	12,6	27,2	42,1	9. 21. 57,56				57,92			9. 22. 56,03			T.
	(g) Bessel ix. 1011 ..	8,2	21,4	35,0	48,8	2,8	16,2	30,0	9. 45. 48,92				49,38			9. 46. 47,51			T.
	26 Leonis.....	25,6	39,3	53,5	7,5	21,4	35,3	49,0	9. 49. 7,37				7,79			9. 50. 5,92			T.
	Bessel ix. 1137 ..	28,0	41,8	55,4	9,2	23,5	36,9	50,5	9. 52. 9,33				9,77			9. 53. 7,91			T.
	H. C. 19617.....	....	39,2	52,9	6,7	20,3	34,2	....	9. 54. 6,66				7,12			9. 55. 5,26			T.
	Regulus.....	46,6	0,4	14,0	27,9	41,8	55,5	9,3	9. 59. 27,93				28,36	58,19		10. 0. 26,51			T.
	(h) Bessel x. 161....	18,6	32,0	45,3	59,0	12,5	26,4	39,9	10. 8. 59,10				59,56			10. 9. 57,71			T.
	Bessel x. 240....	34,5	48,3	1,9	15,8	29,4	43,3	57,1	10. 13. 15,76				16,20			10. 14. 14,36			T.
	(i) H. C. 20183.....	24,1	37,8	51,5	5,2	19,2	32,8	46,4	10. 16. 5,29				5,73			10. 17. 3,89			T.
	Bessel x. 354....	....	40,9	54,3	8,2	22,2	35,5	....	10. 19. 8,22				8,67			10. 20. 6,83			T.
	ρ Leonis.....	18,8	32,6	46,1	59,7	13,5	27,1	40,6	10. 23. 59,78				0,23			10. 24. 58,40			T.
	Bessel x. 496....	26,2	39,9	53,5	7,4	21,3	34,8	48,6	10. 27. 7,39				7,83			10. 28. 6,00			T.
	Bessel x. 552....	3,6	16,8	30,5	44,0	57,7	11,1	24,6	10. 29. 44,04				44,50			10. 30. 42,68			T.
	(k) Bessel x. 603....	8,2	22,1	35,9	49,6	3,9	17,3	31,2	10. 32. 49,75				50,19			10. 33. 48,57			T.
	(l) Bessel x. 658....	12,3	25,9	39,6	52,8	6,4	20,1	33,4	10. 35. 52,93				53,40			10. 36. 51,59			T.
	Bessel x. 732....	17,8	31,4	44,9	58,4	12,4	25,9	39,3	10. 39. 58,59				59,04			10. 40. 57,23			T.
	(m) Bessel x. 821....	19,8	33,3	46,5	0,2	13,9	27,2	40,5	10. 44. 0,20				0,67			10. 44. 58,86			T.
	) 1 L.....	24,8	38,9	52,6	6,0	21,4	35,0	49,1	10. 50. 6,96				7,41			10. 51. 5,61			T.
	(n) Bessel x. 988....	12,4	25,9	39,3	52,9	7,0	20,4	33,9	10. 53. 53,11				53,56			10. 54. 51,76			T.
	(o) Bessel x. 1058....	57,4	10,9	24,8	37,6	51,4	4,7	18,2	10. 57. 37,79				38,26			10. 58. 36,47			T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

(a) 'Good observation.' (b) Cloudy. (c) Used for clock-error, 0,09 being added to the R.A. of the Nautical Almanac. (See Introduction).
 (d) Quite cloudy soon after. (e) 'Good.' (f) 'Good observation: no object near this.' (g) 'One of Mag. 7½ north-following,' viz. Bessel ix. 1017.
 (h) 'A brighter followed at an interval of 24." (i) 'Followed by a bright star of nearly the same N.P.D.' (k) 'One of equal magnitude north-preceding.'
 (l) The counting was 1° less. (m) The counting was 1° more. (n) Faint, being near the Moon. (o) 'One of equal magnitude south-preceding.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Apr. 12	δ Leonis	29,4	43,8	58,3	12,8	27,2	41,8	56,2	11. 5. 12,78	-1,1	+2,5	+1,8	13,17	58,43	1,48	11. 6. 11,38			T.
	σ Leonis	48,5	2,1	15,4	29,4	43,1	56,4	9,9	11. 12. 29,26				29,72			11. 13. 27,94			T.
	(a) τ Leonis	38,1	51,6	5,2	18,5	32,2	45,6	59,1	11. 19. 18,62				19,09			11. 20. 17,32			T.
	β Corvi	53,1	7,6	22,4	36,8	51,6	6,3	20,6	12. 25. 36,92				37,34	58,15		12. 26. 35,64			T.
	Polaris SP.....	43,0	25,5	57,5	44,0	....	0,5	41,0	13. 3. 42,48				43,35						
	Spica.....	42,4	56,2	9,6	23,4	37,2	50,9	4,5	13. 16. 23,46				23,87	58,29		13. 17. 22,22			T.
Apr. 15	β Leonis	43,6	57,6	11,3	25,5	39,4	53,3	7,3	11. 40. 25,43			+0,5	25,80	62,58	1,43	11. 41. 28,39			T.
	H. C. 22584.....	18,6	31,9	45,3	59,0	12,5	25,9	39,3	11. 51. 58,93				59,30			11. 53. 1,89			T.
	B.A.C. 4069.....	....	36,4	49,7	3,4	17,2	30,4	....	11. 56. 3,42				3,82			11. 57. 6,42			T.
	H. C. 22755.....	13,1	26,5	39,9	53,5	7,3	20,6	34,1	11. 58. 53,57				53,97			11. 59. 56,57			T.
	Bessel xii. 44.....	59,7	13,1	26,6	40,1	54,0	7,4	20,6	12. 2. 40,21				40,58			12. 3. 43,19			T.
	Bessel xii. 103 ..	40,3	53,1	6,8	20,4	34,2	47,3	1,0	12. 6. 20,44				20,83			12. 7. 23,44			T.
	(b) B.A.C. 4135.....	48,8	2,2	15,6	29,1	42,8	56,3	9,4	12. 9. 29,17				29,55			12. 10. 32,16			T.
	(c) B.A.C. 4200.....	30,2	44,2	57,5	11,2	24,8	37,9	51,6	12. 19. 11,05				11,42			12. 20. 14,04			T.
	B.A.C. 4220.....	29,2	42,6	56,2	9,4	23,4	36,7	50,2	12. 22. 9,68				10,06			12. 23. 12,69			T.
	(d) β Corvi.....	48,8	3,5	17,7	32,5	47,2	1,6	16,2	12. 25. 32,50				32,83	62,66		12. 26. 35,46			T.
	(e) Spica.....	38,2	51,8	5,3	19,2	33,0	46,4	0,1	13. 16. 19,15				19,48	62,70		13. 17. 22,16			T.
	(e) δ 2 L.....	13,8	27,6	41,5	55,6	9,6	23,4	37,3	13. 44. 55,54				55,90			13. 45. 58,61			T.
	(e) κ Virginis.....	14,4	28,2	41,7	55,4	9,2	22,8	36,4	14. 3. 55,44				55,78			14. 4. 58,51			T.
	Arcturus.....	7,3	21,5	35,7	50,1	4,7	18,8	32,8	14. 7. 50,12				50,47	62,70		14. 8. 53,20			T.
	λ Virginis.....	19,8	33,6	47,5	1,3	15,5	29,0	42,8	14. 10. 1,35				1,68			14. 11. 4,41			T.
Apr. 17	(f) ⊙ 2 L.....	0,9	14,6	28,4	42,1	56,2	9,6	23,6	1. 39. 42,20				42,59		1,37	1. 40. 47,45			T.
	δ Leonis	22,6	37,0	51,2	5,7	20,4	34,6	49,1	11. 6. 5,80				6,14	5,42		11. 6. 11,53			T.
	H. C. 21911	55,2	8,3	21,9	35,4	49,1	2,4	15,7	11. 24. 35,43				35,83			11. 24. 41,24			T.
	Bessel xi. 479	54,0	7,6	21,0	34,8	48,6	2,1	15,7	11. 27. 34,83				35,22			11. 27. 40,63			T.
	(g) H. C. 22079.....	35,4	49,0	2,3	15,8	29,6	43,1	56,6	11. 31. 15,97				16,37			11. 31. 21,79			T.
	(h) * N.P.D. 82° 37'	13,0	26,7	40,2	53,3	7,2	20,9	34,6	11. 35. 53,70				54,10			11. 35. 59,52			T.
	Bessel xi. 679	56,2	9,8	23,1	36,7	50,3	3,6	17,1	11. 38. 36,69				37,10			11. 38. 42,52			T.
	β Leonis	40,4	54,5	8,5	22,4	36,5	50,6	4,5	11. 41. 22,48				22,85	5,52		11. 41. 28,28			T.
	(i) Arcturus.....	4,6	18,8	33,0	47,3	1,7	16,0	30,4	14. 8. 47,40				47,75	5,43		14. 8. 53,32			T.
	ζ Libræ.....	4,9	18,9	32,8	46,9	1,2	15,0	28,9	15. 19. 46,94				47,26			15. 19. 52,90			T.
	γ Libræ.....	25,4	39,4	53,2	7,1	21,2	34,9	48,5	15. 27. 7,10				7,42			15. 27. 13,06			T.
	α Serpentis.....	10,2	23,9	37,3	50,8	4,6	18,2	31,6	15. 36. 50,94				51,34	5,66		15. 36. 56,99			T.
	δ 2 L.....	58,1	12,6	26,8	41,2	55,8	9,9	24,6	15. 39. 41,28				41,60			15. 39. 47,25			T.
Apr. 18	(k) Polaris.....	....	13,0	49,0	30,5	....	51,0	32,0	1. 4. 32,46				32,85		1,28	1. 4. 40,35			T.
Apr. 19	⊙ 1 L.....	13,4	27,2	40,8	54,6	8,5	22,3	36,1	1. 45. 54,70				55,06			1. 46. 2,59			T.
	⊙ 2 L.....	23,7	37,5	51,2	5,0	18,8	32,6	46,4	1. 48. 5,03				5,39			1. 48. 12,93			T.
	Aldebaran.....	31,4	45,4	59,4	13,3	27,6	41,3	55,2	4. 27. 13,37				13,71	7,75		4. 27. 21,39			T.
	δ Leonis	19,8	34,2	48,6	3,2	17,7	32,1	46,4	11. 6. 3,14				3,45	8,10		11. 6. 11,48			T.
	(l) β Leonis.....	38,2	52,2	5,8	19,8	34,1	47,9	1,8	11. 41. 19,98				20,33	8,03		11. 41. 28,39			T.
	(m) B.A.C. 4135.....	43,5	56,8	10,2	23,6	37,4	50,7	4,2	12. 10. 23,77				24,13			12. 10. 32,22			T.
	(n) Bessel xii. 308 ..	31,0	44,6	57,8	11,3	25,2	38,5	52,0	12. 19. 11,48				11,83			12. 19. 19,93			T.
	(e) B.A.C. 4220	23,9	....	50,7	4,3	17,9	31,3	....	12. 23. 4,31				4,67			12. 23. 12,77			T.
	(o) β Corvi.....	43,3	58,1	12,3	26,8	41,9	56,4	10,8	12. 26. 27,09				27,41	8,07		12. 26. 35,51			T.
	Polaris SP.....	17,5	18,0	49,0	38,0	....	55,0	34,5	13. 4. 32,53				32,28			1. 4. 40,42			T.
	(p) Arcturus.....	1,9	16,3	30,4	44,6	59,4	13,3	27,7	14. 8. 44,80				45,12	8,08		14. 8. 53,31			T.
	ε Bootis.....	....	....	5,8	21,6	37,1	52,0	7,2	14. 38. 21,56				21,83	8,24		14. 38. 30,05			T.
	(q) Astræa.....	33,8	47,1	0,3	14,0	27,9	41,1	54,3	14. 43. 14,07				14,40			14. 43. 22,62			T.
Apr. 21	⊙ 1 L.....	37,3	51,2	4,7	18,5	32,6	46,2	0,0	1. 53. 18,65				19,01		1,26	1. 53. 29,09			T.
	⊙ 2 L.....	47,7	1,5	15,2	29,0	43,0	56,6	10,5	1. 55. 29,08				29,44			1. 55. 39,52			T.
Apr. 22	β Corvi.....	....	....	....	23,5	38,3	52,7	7,2	12. 26. 23,55			+1,4	23,74	11,74	1,15	12. 26. 35,54			T.
	ε Bootis.....	32,6	47,8	2,6	18,0	33,6	48,5	3,6	14. 38. 18,10				18,27	11,83		14. 38. 30,18			T.
	(r) Astræa.....	....	....	....	....	....	3,0	....	14. 40. 35,93				36,14			14. 40. 48,05			T.

ILLUMINATION EAST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,344, -26°,892, -13°,573, -0°,060, +13°,618, +26°,913, +40°,337.

April 17, 2^h, Hardy was put forward 1^m.

(a) Observed confusedly: 1^s has been deducted conjecturally. (b) 'The north-following of two equal.' The other is B.A.C. 4134. (c) A fainter of greater N.P.D. was noticed. (d) Reduced to Mag. 6 by cloud. During the previous observations the sky was covered with thin cloud which gradually became denser. (e) Cloudy. (f) 'Not good: too cloudy.' (g) 'One rather fainter precedes.' (h) Wire IV. is occultant. The N.P.D. of this star, which was taken for H. C. 22162, is uncertain. (i) Very faint from thick cloud. (k) Very unsteady. (l) Cloudy southward. (m) 'The north-following star.' (n) The counting was 10^s less. (o) The counting was 6^s less, not being taken from the clock. (p) Faint from thick cloud. (q) 'Good observation.' (r) 'Seen only at this wire: a brighter object somewhat higher in the field.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
Apr. 22	α^2 Libræ.....	....	....	13,8	27,8	42,1	56,0	....	14. 42. 27,95	-1,1	+1,4	-1,3	28,13	11,79	1,15	14. 42. 40,04		T.
Apr. 23	\odot 1 L.....	3,2	17,2	31,0	45,0	59,0	12,5	26,2	2. 0. 44,87				45,12			2. 0. 57,58		T.	
	(a) \odot 2 L.....	....	27,9	41,8	55,6	9,7	23,4	37,2	2. 2. 55,70				55,95			2. 3. 8,41		T.
	(b) Polaris.....	....	11,0	....	24,0	13,0	42,5	....	1. 4. 26,80				28,69		1,09	1. 4. 42,19		T.
Apr. 24	\odot 1 L.....	46,6	0,4	14,0	27,9	42,2	56,0	....	2. 4. 28,09				28,33			2. 4. 41,87		T.
Apr. 25	(c) Spica.....	25,8	39,4	53,2	7,0	20,8	34,3	48,2	13. 17. 6,96				7,15	15,06	1,18			B.	
	(c) Arcturus.....	55,0	9,3	23,6	38,0	52,7	6,3	21,0	14. 8. 37,99				38,21	15,03				B.	
	Astræa.....	12,6	....	....	....	7,3	....	34,1	14. 37. 53,44				53,66			14. 38. 8,75		B.
Apr. 27	Polaris.....	....	....	42,5	....	11,0	42,0	....	1. 4. 25,34				27,23		1,34	1. 4. 45,39		T.
Apr. 28	(d) \odot 2 L.....	58,6	12,2	26,1	39,9	54,6	7,9	21,8	2. 21. 40,16				40,41			2. 21. 58,64		T.	
	α Orionis.....	6,5	19,7	33,1	46,6	0,6	14,0	27,3	5. 46. 46,83				47,09	18,41		5. 47. 5,51		T.	
	(e) β Leonis.....	27,1	41,3	55,2	9,2	23,4	37,2	51,1	11. 41. 9,22				9,46	18,83		11. 41. 28,21		T.	
	Bessel xi. 844...	11,3	24,7	38,1	51,7	5,7	18,8	32,4	11. 43. 51,81				52,08			11. 49. 10,84		T.	
	Bessel xi. 895...	58,2	11,7	24,9	38,6	52,1	5,6	18,8	11. 51. 38,56				38,81			11. 51. 57,57		T.	
	Bessel xi. 939...	55,8	9,2	22,6	36,1	49,9	3,2	16,7	11. 55. 36,21				36,45			11. 55. 55,21		T.	
	(f) Bessel xi. 997...	14,2	27,7	41,6	55,2	....	22,2	35,5	11. 57. 55,01				55,23			11. 58. 14,00		T.
	10 Virginis.....	4,6	18,3	31,6	45,2	58,8	12,4	25,5	12. 1. 45,20				45,46			12. 2. 4,23		T.	
	Bessel xii. 82....	0,6	14,0	27,4	40,8	54,6	7,9	21,6	12. 5. 40,98				41,23			12. 6. 0,00		T.	
	Bessel xii. 121...	28,1	41,6	55,0	8,8	22,3	35,8	49,3	12. 8. 8,70				8,91			12. 8. 27,68		T.	
	Bessel xii. 178...	37,2	50,5	3,9	17,6	31,2	44,3	57,6	12. 11. 17,47				17,71			12. 11. 36,49		T.	
	Bessel xii. 249...	18,2	31,6	45,1	58,8	12,3	25,8	39,3	12. 14. 58,73				58,96			12. 15. 17,74		T.	
	β Corvi.....	32,6	47,2	1,6	16,3	31,2	45,3	0,2	12. 26. 16,35				16,54	18,92		12. 26. 35,33		T.	
	Polaris SP.....	....	11,5	45,0	31,0	....	46,0	24,0	13. 4. 28,67				26,68			1. 4. 45,51		T.
	Spica.....	22,2	36,0	49,3	3,2	17,2	30,6	44,3	13. 17. 3,26				3,45	18,76		13. 17. 22,29		T.	
	Arcturus.....	....	....	....	34,3	48,7	2,8	17,3	14. 8. 34,27				34,49	18,77		14. 8. 53,38		T.
	(g) Astræa.....	....	42,0	....	....	23,0	36,2	....	14. 35. 9,17				9,39			14. 35. 28,30		T.
	ϵ Bootis.....	....	40,7	55,6	11,1	26,4	41,4	....	14. 38. 11,04				11,21	18,94		14. 38. 30,12		T.
	α^2 Libræ.....	39,1	53,1	6,8	20,9	35,1	48,8	2,8	14. 42. 20,94				21,12	18,87		14. 42. 40,04		T.	
Apr. 29	(a)(h) \odot 2 L.....	44,3	58,0	11,7	....	....	....	....	2. 25. 25,88				26,12		1,40	2. 25. 45,69		T.
	(a) β Leonis.....	26,0	40,2	53,8	....	....	....	....	11. 41. 7,93				8,17	20,12		11. 41. 28,28		T.
	(a) β Corvi.....	31,3	46,0	0,5	15,1	29,8	44,4	58,8	12. 26. 15,13				15,32	20,14		12. 26. 35,47		T.	
	(a)(i) Spica.....	....	34,6	48,1	1,6	15,5	29,3	....	13. 17. 1,82				2,01	20,21		13. 17. 22,21		T.
	Arcturus.....	49,6	4,3	18,6	32,7	47,3	1,5	15,6	14. 8. 32,80				33,02	20,24		14. 8. 53,27		T.	
Apr. 30	(k) \odot 1 L.....	....	33,2	47,1	0,5	15,2	28,8	42,9	2. 27. 0,98		+1,3		1,21			2. 27. 22,18		T.
	\odot 2 L.....	30,8	....	58,7	....	26,8	40,7	54,6	2. 29. 12,73				12,96			2. 29. 33,93		T.
May 1	Spica.....	18,1	31,6	45,2	58,7	12,4	26,2	39,8	13. 16. 58,86				59,05	23,17	1,38	13. 17. 22,24		T.	
	Arcturus.....	47,1	1,2	15,6	29,7	44,2	58,4	12,8	14. 8. 29,86				30,07	23,20		14. 8. 53,31		T.	
	Astræa.....	43,3	....	10,3	23,2	37,0	50,7	4,2	14. 32. 23,62				23,84			14. 32. 47,10		T.
	ϵ Bootis.....	....	36,2	51,2	6,4	22,0	37,1	....	14. 38. 6,58				6,75	23,42		14. 38. 30,02		T.
	α^2 Libræ.....	34,6	48,6	2,4	16,6	31,0	44,5	58,6	14. 42. 16,62				16,80	23,22		14. 42. 40,07		T.	
May 2	(l) Arcturus.....	....	....	....	28,3	43,2	57,3	11,6	14. 8. 28,60				28,81	24,46	1,42	14. 8. 53,37		T.
	ϵ Bootis.....	....	....	....	5,3	20,7	35,4	51,0	14. 38. 5,29				5,46	24,71		14. 38. 30,06		T.
	α^2 Libræ.....	33,4	47,4	1,2	15,2	29,2	43,2	57,1	14. 42. 15,24				15,42	24,61		14. 42. 40,02		T.	
May 3	β Leonis.....	....	34,2	47,8	2,2	16,1	30,1	....	11. 41. 2,08				2,31	25,94	1,51	11. 41. 28,25		T.
	(a)(m) Arcturus.....	44,2	58,5	12,6	26,9	41,4	55,6	10,1	14. 8. 27,05				27,26	26,02		14. 8. 53,36		T.	
	(a) ϵ Bootis.....	....	33,4	48,3	3,7	19,4	34,3	....	14. 38. 3,82				3,99	26,19		14. 38. 30,12		T.
	(a) α^2 Libræ.....	31,8	45,6	59,7	....	28,1	41,6	55,6	14. 42. 13,72				13,90	26,13		14. 42. 40,03		T.
May 6	Bessel xi. 1032..	31,4	44,7	58,2	11,5	25,2	38,6	52,1	12. 0. 11,67	-2,4	-0,8	+1,3	11,66		1,57	12. 0. 42,18		T.	

ILLUMINATION EAST. From May 6, ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^{\circ}344$, $-26^{\circ}892$, $-13^{\circ}573$, $-0^{\circ}060$, $+13^{\circ}618$, $+26^{\circ}913$, $+40^{\circ}337$. From May 6, $-40^{\circ}337$, $-26^{\circ}913$, $-13^{\circ}618$, $+0^{\circ}060$, $+13^{\circ}573$, $+26^{\circ}892$, $+40^{\circ}344$.

(a) Cloudy. (b) Cloudy, and the star unsteady. (c) Had definition. (d) Clouds passing. (e) The observer felt unwell. (f) The counting was found to be $\frac{1}{2}$ fast: the first four wires have been diminished $10''$, and the last two $9''$. (g) 'Too faint.' (h) 'Quite uncertain.' (i) Very faint at times. (k) 'Wire IV quite uncertain.' (l) Scarcely visible from clouds. (m) Faint.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h.	m.	s.	
May 6	Bessel XII. 44...	32,0	45,3	58,6	12,5	26,1	39,2	53,1	12. 3. 12,40	-2,4	-0,8	+1,3	12,42		1,57	12. 3. 42,94			T.
	(a)(b) Bessel XII. 93...	22,0	35,5	48,3	2,3	...	29,2	...	12. 6. 2,24				2,22			12. 6. 32,74			T.
	(c) Bessel XII. 138...	...	24,4	37,5	51,4	4,7	18,3	...	12. 8. 51,26				51,22			12. 9. 21,75			T.
	(a) Bessel XII. 218...	29,2	...	56,1	9,6	23,3	...	50,2	12. 13. 9,68				9,65			12. 13. 40,18			T.
	Bessel XII. 272...	55,9	9,2	22,6	36,2	50,0	3,2	17,1	12. 16. 36,32				36,33			12. 17. 6,86			T.
	(d) β Corvi.....	20,9	36,3	...	...	...	...	...	12. 25. 5,02				5,09	30,33		12. 31. 23,74			T.
	(e) Bessel XII. 523...	12,5	26,1	39,3	53,2	7,0	20,2	33,9	12. 30. 53,17				53,19			12. 31. 23,74			T.
	(f) Bessel XII. 569...	1,1	14,4	27,9	41,3	55,1	8,2	22,0	12. 33. 41,43				41,42			12. 34. 11,97			T.
	Polaris SP.....	11,0	50,5	24,0	6,0	...	25,0	5,0	13. 4. 7,66				17,94			1. 4. 48,53			T.
	(g)(d) Spica.....	...	...	...	...	...	18,9	32,5	13. 16. 51,51				51,53	30,68					T.
May 7	(a)(d) Arcturus.....	39,6	54,0	8,3	22,6	37,2	...	...	14. 8. 22,65				22,58	30,71					T.
	(h) \odot 2 L.....	11,6	25,9	39,7	54,0	8,2	22,2	36,1	2. 55. 53,96				53,87			2. 56. 25,36			T.
May 8	(i) \odot 1 L.....	49,7	3,8	17,4	32,1	46,2	0,2	14,3	2. 57. 31,95				31,86		1,62	2. 58. 4,96			T.
	\odot 2 L.....	2,5	16,6	30,7	...	59,2	13,0	...	2. 59. 44,87				44,78			3. 0. 17,88			T.
	Regulus.....	11,2	25,2	38,6	52,6	6,4	20,2	34,1	9. 59. 52,61				52,50	33,71		10. 0. 26,07			T.
	δ Leonis.....	...	8,8	23,1	37,7	52,2	6,5	...	11. 5. 37,66				37,59	33,75		11. 6. 11,24			T.
	(k) β Leonis.....	12,9	26,4	40,4	54,6	8,6	22,4	36,5	11. 40. 54,54				54,43	33,78		11. 41. 28,12			T.
	Bessel XII. 414...	21,9	35,2	48,5	2,3	15,9	29,2	42,9	12. 24. 2,27				2,27			12. 24. 36,01			T.
	β Corvi.....	17,8	32,4	46,8	1,6	16,3	30,8	45,3	12. 26. 1,57				1,64	33,77		12. 26. 35,38			T.
	Bessel XII. 490...	...	27,1	40,5	54,1	7,5	20,8	...	12. 28. 54,00				53,99			12. 29. 27,73			T.
	(l) Bessel XII. 555...	4,7	18,2	31,4	45,3	59,0	12,5	26,1	12. 32. 45,31				45,33			12. 33. 19,08			T.
	(m) Polaris SP.....	6,0	40,0	24,0	4,0	50,0	22,0	1,5	13. 4. 5,21				15,49			1. 4. 49,27			T.
May 9	Spica.....	7,4	21,1	34,6	48,3	2,2	15,6	29,3	13. 16. 48,36				48,38	33,83		13. 17. 22,18			T.
	(n) Bessel XII. 725...	...	54,9	...	22,2	36,1	49,3	3,2	13. 41. 22,18				22,20			13. 41. 56,02			T.
	Bessel XIII. 773...	12,7	26,3	39,7	53,4	7,2	20,6	34,3	13. 44. 53,46				53,48			13. 45. 27,31			T.
	(o) Bessel XIII. 842...	...	52,0	5,3	19,4	33,2	46,7	...	13. 48. 19,32				19,34			13. 48. 53,17			T.
	B.A.C. 4666.....	0,6	14,3	27,6	41,4	55,2	8,5	22,1	13. 51. 41,38				41,40			13. 52. 15,23			T.
	Bessel XIII. 973...	47,5	1,3	15,0	29,0	42,7	56,2	10,2	13. 55. 28,85				28,88			13. 56. 2,72			T.
	95 Virginis.....	37,2	50,7	4,2	18,2	31,7	45,2	58,8	13. 58. 18,00				18,02			13. 58. 51,86			T.
	Arcturus.....	...	51,1	5,3	19,6	34,2	48,3	...	14. 8. 19,70				19,63	33,66		14. 8. 53,48			T.
	(p) Astræa.....	29,1	...	55,3	...	23,0	...	49,9	14. 26. 9,32				9,33			14. 26. 43,20			T.
	α^2 Libræ.....	24,6	38,2	52,2	6,4	20,3	34,2	48,2	14. 43. 6,30				6,36	33,71		14. 43. 40,25			T.
May 9	(q) Polaris.....	28,0	7,0	40,0	...	...	...	...	1. 4. 24,34				14,90		1,58	1. 4. 49,52			T.
	γ 1 L.....	5,9	19,7	33,9	48,4	2,4	16,4	30,4	10. 29. 48,16				48,05			10. 30. 23,29			T.
	δ Leonis.....	53,0	7,2	21,4	36,2	50,7	5,0	19,4	11. 5. 36,13				36,06	35,26		11. 6. 11,34			T.
	σ Leonis.....	...	25,4	38,9	52,4	6,3	19,6	33,2	11. 12. 52,53				52,43			11. 13. 27,72			T.
	β Leonis.....	11,1	25,2	39,0	53,2	7,1	21,0	34,9	11. 40. 53,07				52,96	35,24		11. 41. 28,28			T.
	(r) Bessel XII. 121...	11,6	25,3	38,6	52,5	6,2	19,4	33,0	12. 7. 52,37				52,39			12. 8. 27,74			T.
	B.A.C. 4135.....	...	30,0	43,2	56,8	10,2	23,4	...	12. 9. 56,72				56,72			12. 10. 32,07			T.
	(s) Bessel XII. 218...	24,9	38,0	51,5	5,1	18,3	31,9	...	12. 13. 5,00				4,96			12. 13. 40,31			T.
	Bessel XII. 291...	56,1	9,6	22,9	56,7	50,1	3,6	17,1	12. 17. 36,59				36,59			12. 18. 11,95			T.
	Bessel XII. 356...	3,4	16,7	30,0	43,9	57,1	10,6	24,1	12. 20. 43,69				43,64			12. 21. 19,00			T.
May 9	Bessel XII. 390...	...	35,0	48,2	2,0	15,6	28,9	...	12. 23. 1,94				1,96			12. 23. 37,32			T.
	β Corvi.....	16,3	30,7	45,2	0,0	14,7	29,4	43,6	12. 25. 59,98				0,05	35,35		12. 26. 35,42			T.
	Bessel XII. 569...	56,1	9,8	23,1	37,0	50,4	3,8	17,1	12. 33. 36,76				36,75			12. 34. 12,13			T.
	Bessel XII. 621...	24,5	38,2	51,8	5,6	19,4	33,0	46,6	12. 36. 5,59				5,61			12. 36. 40,99			T.
	Bessel XII. 677...	36,1	49,6	3,0	16,8	30,3	43,7	57,2	12. 39. 16,67				16,68			12. 39. 52,06			T.
	Bessel XII. 729...	30,7	43,9	57,5	11,1	24,7	38,1	51,2	12. 42. 11,03				11,02			12. 42. 46,41			T.
	Bessel XII. 772...	...	17,0	30,3	44,2	57,4	11,0	...	12. 44. 43,98				43,98			12. 45. 19,37			T.
	Bessel XII. 820...	47,2	0,7	14,0	27,5	41,4	54,5	8,1	12. 47. 27,63				27,63			12. 48. 3,02			T.
	Bessel XII. 867...	35,0	48,3	1,4	15,3	28,9	42,2	55,4	12. 50. 15,21				15,19			12. 50. 50,59			T.
	(t) H. C. 24598.....	...	50,9	4,1	17,5	31,5	45,0	...	13. 7. 17,80				17,81			13. 7. 53,22			T.
May 9	Bessel XIII. 177...	44,0	57,6	11,4	25,3	39,2	52,5	6,4	13. 10. 25,20				25,23			13. 11. 0,65			T.
	B.A.C. 4471.....	0,6	14,3	28,0	42,0	55,9	9,2	23,2	13. 13. 41,88				41,91			13. 14. 17,33			T.
	Spica.....	5,7	19,4	33,2	47,0	0,4	14,2	27,7	13. 16. 46,80				46,82	35,39		13. 17. 22,24			T.
	Bessel XIII. 321...	...	2,0	15,3	29,1	42,7	56,2	...	13. 19. 29,06				29,06			13. 20. 4,40			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^{\circ}337$, $-26^{\circ}913$, $-13^{\circ}618$, $+0^{\circ}060$, $+13^{\circ}573$, $+26^{\circ}892$, $+40^{\circ}344$.

(a) Cloudy. (b) Faint and at times invisible. (c) The counting was 1^s less. (d) In calculating the mean clock-error, weights are given to these in proportion to the number of wires. (e) 'A brighter south-following,' viz. χ Virginis. (f) 'The most southern of three.' (g) 'Scarcely visible from clouds.' (h) 1 L. hid by cloud. (i) Clouds passing: wires V and VI of 2 L. without the dark glass. (j) Faint from cloud. (k) 'One of Mag. 9.10 south-following, and another of Mag. 8 south-following by about 19'. Nothing seen in the place of H. C. 23657. (l) 'Good observation.' (m) 'The south-following of two equal.' (n) 'One equal of less N.P.D. follows.' (o) Wire VII was written down 19.9. (p) Wire III doubtful from clouds. (q) 'One of Mag. 8 south-following.' (r) 'One of Mag. 9 north-following, and another of Mag. 8 north-following.' (s) Very faint. (t) 'The north-following of two: not a good observation.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"		s.	s.	s.	h.	m.	s.
May 9	Astræa.....	....	50,7	4,0	18,0	31,2	....	58,1	14.25.17,70	-2,4	-0,8	+1,3	17,71		1,58	14.25.53,21			T.
	ε Bootis.....	9,2	24,5	39,4	54,8	10,2	25,2	40,4	14.37.54,81				54,71	35,50		14.38.30,22			T.
	(a) α ² Libræ.....	22,5	36,4	50,3	4,4	18,4	32,3	46,3	14.42.4,37				4,43	35,65		14.42.39,95			T.
May 10	⊙ 1 L.....	....	....	....	15,2	29,4	43,5	57,6	3.5.15,17				15,09		1,45	3.5.51,37			T.
	⊙ 2 L.....	46,1	0,0	14,0	28,6	42,6	56,6	10,8	3.7.28,39				28,31			3.8.4,59			T.
	(b) Rigel.....	4,4	17,8	31,5	45,1	58,8	12,4	26,1	5.6.45,16				45,18	36,44		5.7.21,58			T.
	α Orionis.....	....	....	15,3	29,1	42,7	56,2	9,7	5.46.29,04				28,94	36,47		5.47.5,38			T.
May 13	Procyon.....	....	26,0	39,4	53,2	6,6	20,2	....	7.30.53,08				53,00	36,48		7.31.29,54			T.
	δ Leonis.....	47,2	1,5	15,6	30,4	45,1	59,3	13,6	11.5.30,38		-0,9	+2,3	30,34	40,94	1,40	11.6.11,15			T.
	β Leonis.....	....	....	33,2	47,3	1,3	15,2	29,1	11.40.47,27				47,20	40,96		11.41.28,05			T.
	β Corvi.....	10,6	25,2	39,7	54,6	9,1	23,6	38,2	12.25.54,46				54,60	40,77		12.26.35,49			T.
	Bessel XII. 639..	25,7	39,1	52,7	6,6	20,2	33,8	47,1	12.37.6,46				6,53			12.37.47,44			T.
	Bessel XII. 729..	25,2	38,7	52,0	5,4	19,0	32,3	46,0	12.42.5,51				5,55			12.42.46,46			T.
	Bessel XII. 772..	58,0	11,4	24,9	38,6	52,0	5,4	19,0	12.44.38,47				38,52			12.45.19,43			T.
	Bessel XII. 820..	41,6	55,0	8,4	22,0	35,7	49,1	2,4	12.47.22,03				22,08			12.48.3,00			T.
	Bessel XII. 867..	29,2	42,6	55,9	9,5	23,3	36,6	49,9	12.50.9,57				9,60			12.50.50,52			T.
	(c) 46 Virginis.....	....	49,0	2,4	16,2	29,6	42,7	....	12.52.15,98				16,03			12.52.56,95			T.
	(d) Bessel XII. 953..	....	13,2	26,0	....	53,9	7,1	....	12.54.40,17				40,22			12.55.21,14			T.
	(e) Bessel XII. 1011..	17,0	30,6	44,1	57,7	11,5	25,0	38,7	12.57.57,80				57,88			12.58.38,81			T.
	Bessel XII. 1058..	....	59,3	12,6	26,2	40,0	53,4	....	13.0.26,30				26,37			13.1.7,30			T.
	Bessel XIII. 37..	11,2	25,0	38,3	52,1	5,9	19,2	32,7	13.2.52,05				52,12			13.3.33,05			T.
	Bessel XIII. 92..	55,9	9,1	22,6	36,4	50,0	3,2	17,0	13.5.36,32				36,39			13.6.17,32			T.
	Bessel XIII. 163..	57,5	11,1	24,7	38,5	52,3	6,0	19,6	13.9.38,53				38,62			13.10.19,56			T.
	Bessel XIII. 206..	18,5	32,1	45,6	59,3	13,0	26,6	40,2	13.11.59,33				59,41			13.12.40,35			T.
	Spica.....	0,2	13,8	27,4	41,4	55,2	8,6	22,2	13.16.41,25				41,33	40,87		13.17.22,27			T.
	(f) Bessel XIII. 321..	43,1	56,5	10,0	23,8	37,2	50,6	4,1	13.19.23,61				23,67			13.20.4,62			T.
	Bessel XIII. 391..	37,7	51,2	5,0	18,8	32,5	45,9	59,5	13.23.18,66				18,74			13.23.59,69			T.
	κ Virginis.....	36,6	50,4	3,8	17,5	31,2	44,8	58,3	14.4.17,52				17,60			14.4.58,59			T.
	ι Virginis.....	52,4	5,8	19,1	33,0	46,3	59,9	13,3	14.7.32,83				32,90			14.8.13,89			T.
	⊙ 1 L.....	49,1	3,2	16,7	31,1	45,2	58,8	13,0	14.13.31,01				31,08			14.14.12,08			T.
	(g) ε Bootis.....	....	19,0	33,7	48,9	4,4	19,6	....	14.37.49,12				49,05	41,17		14.38.30,07			T.
	α ² Libræ.....	17,3	30,7	44,9	59,0	13,2	27,1	41,1	14.41.59,05				59,17	40,93		14.42.40,20			T.
	δ Libræ.....	40,5	54,2	7,4	21,4	35,1	48,5	2,1	14.52.21,31				21,38			14.53.2,42			T.
	(h) α Coronæ.....	....	13,2	27,6	43,3	58,7	13,6	....	15.27.43,28				43,22	41,09		15.28.24,29			T.
	(h) α Herculis.....	30,0	43,9	....	11,8	25,6	39,3	53,6	17.7.11,69				11,62	41,08		17.7.52,79			T.
May 14	(i) ⊙ 1 L.....	....	20,2	34,4	49,0	....	....	....	3.20.48,80				48,76		1,41	3.21.30,54			T.
	⊙ 2 L.....	20,0	34,1	48,3	2,9	17,2	31,2	45,4	3.23.2,73				2,69			3.23.44,47			T.
	(k) δ Leonis.....	....	0,2	14,4	29,1	43,5	57,8	....	11.5.29,00				28,96	42,30		11.6.11,19			T.
	β Leonis.....	4,1	17,9	31,7	46,0	0,1	13,6	27,5	11.40.45,84				45,77	42,38		11.41.28,03			T.
	β Corvi.....	....	24,0	38,2	53,1	7,4	22,2	....	12.25.52,98				53,12	42,25		12.26.35,43			T.
	(l) Bessel XII. 557..	4,1	17,4	30,8	44,7	58,1	11,2	24,8	12.32.44,44				44,46			12.33.26,78			T.
	Bessel XII. 621..	17,6	31,4	45,0	58,4	12,2	25,9	39,7	12.35.58,60				58,68			12.36.41,00			T.
	Bessel XII. 677..	29,2	42,9	56,2	9,9	23,2	36,7	50,1	12.39.9,75				9,82			12.39.52,14			T.
	Bessel XII. 729..	23,7	37,3	50,5	4,0	17,8	31,2	44,6	12.42.4,16				4,20			12.42.46,53			T.
	Bessel XII. 796..	21,5	35,1	48,4	2,1	16,0	29,4	42,8	12.46.2,18				2,25			12.46.44,58			T.
	Bessel XII. 845..	50,0	3,3	17,0	30,7	44,3	58,0	11,7	12.48.30,71				30,79			12.49.13,12			T.
	Bessel XII. 880..	....	15,2	29,0	43,2	56,6	10,2	....	12.50.42,84				42,91			12.51.25,25			T.
	Polaris SP.....	....	....	10,0	53,0	42,0	17,0	56,0	13.3.57,11				9,22			1.4.51,57			T.
	Spica.....	58,9	12,6	26,1	40,0	53,5	7,3	20,8	13.16.39,88				39,96	42,24		13.17.22,32			T.
	Bessel XIII. 572..	56,1	10,0	23,5	37,1	51,2	4,6	18,3	13.32.37,26				37,34			13.33.19,72			T.
	(m) Bessel XIII. 620..	33,0	46,3	59,9	13,9	27,3	40,8	54,1	13.35.13,61				13,68			13.35.56,06			T.
	(n) Astræa.....	....	....	0,2	14,0	27,2	40,8	54,3	14.21.13,81				13,88			14.21.56,30			T.
	δ Libræ.....	39,3	52,9	6,4	20,1	33,7	47,3	0,7	14.52.20,05				20,12			14.53.2,57			T.
	⊙ 1 L.....	56,1	10,4	24,3	39,0	53,2	7,3	21,5	15.9.38,83				38,93			15.10.21,40			T.
	(o) ⊙ 2 L.....	12,3	26,5	40,7	55,1	9,4	23,7	37,8	15.11.55,07				55,17			15.12.37,64			T.
	α Coronæ.....	56,5	11,6	26,4	41,9	57,3	12,2	27,2	15.27.41,87				41,81	42,51		15.28.24,30			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,337, -26°,913, -13°,618, +0°,060, +13°,573, +26°,892, +40°,344.

(a) Diffused. Temp. in Transit Room at 11^h 50^m. (b) Great tremor. (c) The counting was 1st fast. (d) Unsatisfactory observation: the star extremely faint. (e) The counting was 10th fast. (f) The counting was 1st slow. (g) Too ill-defined and unsteady for correct observation. (h) Bad definition and unsteadiness. (i) Cloudy: 1 h. taken doubtfully without the dark glass. (k) The counting was 2nd fast. (l) Very faint. (m) 'A bright star north and following.' (n) 'An object of equal magnitude north-following.' (o) 'Not quite full.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
May 14	η Libræ.....	19,0	33,1	46,9	1,0	15,0	28,8	42,6	15.35.0,91	-2,4	-0,9	+2,3	1,03		1,41	15.35.43,52			T.
	θ Libræ.....		12,1	25,8	40,0	54,1	8,1	22,1	15.44.40,02				40,14			15.45.22,65			T.
	(a) α Herculis.....	28,6	42,5	56,2	10,3	24,2	38,0	51,9	17.7.10,24				10,17	42,55		17.7.52,76			T.
	Polaris.....					2,0	36,0	16,0	1.4.19,68				8,50		1,42	1.4.51,55			T.
May 15	(b) Rigel.....			24,6	38,2	52,0	5,4	19,0	5.6.38,24				38,31	43,30		5.7.21,60			T.
	(c) Polaris SP.....	59,0	40,0	14,0	55,0	38,0	12,5	49,5	13.3.55,43				7,54			1.3.51,30			T.
	Spica.....	57,2	11,1	24,6	38,3	52,1	5,6	19,3	13.16.38,32				38,40	43,79		13.17.22,18			T.
	α Coronæ.....		10,2	25,2	40,5	55,8	10,5	25,9	15.27.40,46				40,40	43,93		15.28.24,30			T.
	η Libræ.....	17,6	31,6	45,3	59,5	13,4	27,2	41,3	15.34.59,42				59,54			15.35.43,45			T.
	θ Libræ.....	56,3	10,3	24,2	38,6	52,6	6,3	20,6	15.44.38,42				38,54			15.45.22,46			T.
	γ 2 L.....	11,0	25,7	39,8	54,7	9,2	23,7	38,0	16.8.54,58				54,71			16.9.38,66			T.
	Antares.....	49,5	4,3	19,2	34,3	49,5	4,3	19,3	16.19.34,34				34,48	43,97		16.20.18,44			T.
	ϕ Ophiuchi.....		26,3	40,2	54,6	8,8	22,6	36,5	16.21.54,49				54,61			16.22.38,57			T.
	B.A.C. 5579.....	32,9	47,1	0,9	15,2	29,5	43,4	57,6	16.32.15,23				15,35			16.32.59,32			T.
	α Herculis.....	27,1	41,1	54,7	9,1	23,0	36,6	50,4	17.7.8,86				8,79	43,95		17.7.52,79			T.
May 16	(d) \odot 1 L.....		10,2	24,3	38,9	53,1	7,3		3.28.38,76				38,72		1,45	3.29.23,33			T.
	\odot 2 L.....	10,4	24,7	38,9	53,3	7,5	22,0	36,2	3.30.53,28				53,24			3.31.37,85			T.
	(e) α Orionis.....	40,0	53,4	6,9			47,8		5.46.20,63				20,58	44,81		5.47.5,33			T.
	Sirius.....		21,3	35,1	49,2	3,4	17,2		6.37.49,24				49,36	44,69		6.38.34,16			T.
	(e) Procyon.....					58,3	11,4	25,2	7.30.44,56				44,52	44,90		7.31.29,37			T.
	Pollux.....	40,0	55,3	10,4	26,2	41,4	56,5	11,8	7.35.25,95				25,88	44,86		7.36.10,74			T.
May 17	(f) Bessel xiii. 308..	52,4	6,0	19,3	33,2	46,6	0,1	13,4	12.18.33,00				33,07		1,52	12.19.19,70			T.
	β Corvi.....	5,0	19,3	33,9	48,6	3,4	17,8	32,2	12.25.48,60				48,74	46,60		12.26.35,38			T.
	(g) Bessel xiii. 92..		3,3		30,7		57,5	11,1	13.5.30,51				30,58			13.6.17,26			T.
	Arcturus.....	23,6	38,0	52,3	6,3	21,2	35,2	49,4	14.8.6,57				6,53	46,76		14.8.53,27			T.
	ϵ Bootis.....	57,9	13,0	28,1	43,5	58,7	13,8	29,1	14.37.43,44				43,37	46,86		14.38.30,15			T.
	α^* Libræ.....	11,4	25,4	39,2	53,3	7,3	21,2	35,2	14.41.53,28				53,40	46,72		14.42.40,18			T.
May 19	(h) \odot 1 L.....	45,0	59,2	13,3	28,1	42,3	56,4	11,0	3.40.27,90			-1,5	27,83		1,65	3.41.17,06			T.
	\odot 2 L.....	59,5	14,0	28,0	42,9	57,2			3.42.42,64				42,57			3.43.31,80			T.
	β Corvi.....	1,8	16,2	30,6	45,3	0,2	14,6	29,2	12.25.45,42				45,55	49,77		12.26.35,38			T.
	(i) H. C. 24598.....	22,8	36,2	49,4	3,0		30,4	43,9	13.7.3,22				3,27			13.7.53,15			T.
	Bessel xiii. 193..	15,9	29,6	43,1	57,1	10,8	24,5	38,2	13.10.57,03				57,10			13.11.46,98			T.
	B.A.C. 4471.....		59,8	13,4	27,3	41,2	54,9		13.13.27,32				27,39			13.14.17,28			T.
	Spica.....	51,3	5,0	18,5	32,3	46,2	59,5	13,3	13.16.32,30				32,36	49,83		13.17.22,25			T.
	Bessel xiii. 320..	26,7	40,1	53,4	7,0	20,8	34,2	47,7	13.19.7,13				7,18			13.19.57,08			T.
	Bessel xiii. 395..	37,9	51,2	4,6	18,4	32,0	45,3	58,6	13.23.18,29				18,33			13.24.8,23			T.
	(k) Bessel xiii. 445..	7,2	21,3	35,0	49,2	2,9	16,7	30,5	13.25.48,98				49,06			13.26.38,96			T.
	H. C. 25199.....	50,8	4,8	18,3	32,4	46,4	0,2	14,2	13.30.32,44				32,54			13.31.22,45			T.
	Bessel xiii. 590..	6,0	19,4	32,9	46,4	0,2	13,4	26,9	13.33.46,46				46,50			13.34.36,41			T.
	B.A.C. 4584.....	29,2	42,8	56,4	10,3	23,9	37,4	51,3	13.37.10,18				10,24			13.38.0,16			T.
	η Virginis.....	1,2	15,0	28,4	42,1	55,7	9,2	22,6	13.39.42,03				42,08			13.40.32,00			T.
	Bessel xiii. 750..	8,4	22,2	35,6	49,6	3,5	17,2	31,1	13.42.49,66				49,73			13.43.39,65			T.
	(l) Bessel xiii. 801..		49,0		16,8	30,4	44,3	58,1	13.46.16,63				16,72			13.47.6,65			T.
	Bessel xiii. 878..		55,2	8,6	22,4	36,0	49,4		13.50.22,32				22,37			13.51.12,30			T.
	H. C. 25762.....	1,5	15,4	29,1	43,1	57,0	10,6	24,4	13.53.43,01				43,10			13.54.33,04			T.
	Bessel xiii. 1001..	32,9	47,1	0,8	14,9	29,0	42,9	56,8	13.56.14,91				15,01			13.57.4,95			T.
	Bessel xiii. 1070..	55,0	8,6	22,1	36,3	50,1	3,6	17,4	13.59.36,16				36,23			14.0.26,17			T.
	Arcturus.....	20,4	34,8	49,0	3,4	17,9	32,0	46,2	14.8.3,38				3,31	49,98		14.8.53,26			T.
	(m) Bessel xiv. 283..	16,0	29,6	43,2	57,3	11,2	24,8	38,3	14.14.57,20				57,27			14.15.47,23			T.
	(n) Astræa.....		6,0		33,2	47,2	0,4	14,2	14.17.33,38				33,42			14.18.23,38			T.
	Bessel xiv. 607..	41,0	54,9	8,6	22,5	36,5	50,2	3,9	14.32.22,51				22,60			14.33.12,58			T.
	Bessel xiv. 735..	8,4	22,3	35,9	49,5	3,8	17,3	31,1	14.38.49,76				49,83			14.39.39,82			T.
	α^* Libræ.....	8,2	22,2	36,1	50,2	4,2	18,1	32,0	14.41.50,14				50,24	49,89		14.42.40,23			T.
	(o) H. C. 27080.....		57,2	11,1	25,8	40,0	54,2	8,4	14.44.25,65				25,77			14.45.15,77			T.
	ξ^* Libræ.....		25,4	39,1	52,8	6,7	20,2		14.47.52,84				52,90			14.48.42,90			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',337, -26',913, -13',618, +0',060, +13',573 +26',892, +40',344.

(a) All except wires I and II have been decreased 5". (b) Very faint and unsteady. (c) 'After wire IV the Telescope was accidentally struck on the west side.' No perceptible effect was found by reducing the last three wires separately. (d) Clouded at times and very unsteady. (e) Clouds. (f) Day-light too strong. (g) Scarcely visible at times. (h) Clouds continually passing. The counting for 1 L. was 10" fast. (i) 'A brighter in the south-following quarter.' (j) 'The following and fainter of two near each other.' (The other is Bessel xiii. 444). 'Both preceded by a star of Mag. 8 and less N.P.D.' (l) Very faint. 'A star of Mag. 8.9 to the north of this.' (m) 'The north-following of two equal.' (n) Extremely faint. (o) Note of the observer, 'Query if 15" fast.' The observation has been diminished 5" to agree with one taken June 13, 1849.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		"	"	"					
May 19	(a) Bessel xiv. 1013.	38,0	51,7	5,5	19,8	33,8	47,6	1,3	14. 53. 19,68	-2,4	-1,5	+2,3	19,78		1,65	14. 54. 9,78	T.
	α Coronæ.....	49,0	4,2	19,1	34,4	49,5	4,6	19,6	15. 27. 34,34				34,24	50,12		15. 28. 24,28	T.
	(b) α Serpentis.....	26,6	49,3	53,6	7,2	21,0	34,5	48,0	15. 36. 7,32				7,24	50,16		15. 36. 57,29	T.
	δ Ophiuchi.....	3,5	16,8	30,3	44,0	57,4	10,9	24,2	16. 5. 43,87				43,90	50,13		16. 6. 33,99	T.
May 21	Arcturus.....	17,1	31,3	45,3	0,0	14,3	28,6	42,8	14. 7. 59,91				59,84	53,45	1,67	14. 8. 53,31	T.
	(c) Astræa.....			0,0	13,3	27,0	40,4	53,8	14. 16. 13,41				13,45			14. 17. 6,93	T.
	α Coronæ.....	45,4	0,6	15,4	31,0	46,1	1,2	16,2	15. 27. 30,84				30,74	53,63		15. 28. 24,31	T.
	α Serpentis.....	23,4	36,9	50,2	4,0	17,3	31,1	44,4	15. 36. 3,90				3,82	53,60		15. 36. 57,39	T.
	Irene.....	37,0	50,7	4,6	18,5	32,3	46,1	0,0	16. 1. 18,46				18,55			16. 2. 12,16	T.
	δ Ophiuchi.....	0,2	13,4	26,8	40,4	54,0	7,5	21,0	16. 5. 40,47				40,50	53,55		16. 6. 34,11	T.
	α Herculis.....	17,4	31,5	45,3	59,3	13,2	27,1	41,0	17. 6. 59,26				59,16	53,68		17. 7. 52,84	T.
	(d) Astræa.....						2,0	16,1	14. 15. 35,33				35,37		1,63	14. 16. 30,67	B.
May 22	ε Bootis.....		4,6	19,8	35,0	50,1	5,2		14. 37. 34,94				34,83	55,41		14. 38. 30,15	B.
	α ² Libræ.....	3,0	16,8	30,7	45,1	58,9	12,7	26,7	14. 41. 44,84				44,94	55,20		14. 42. 40,27	B.
	α Serpentis.....	21,2	35,0	48,4	2,0	15,8	29,2	42,8	15. 36. 2,05				1,97	55,46		15. 36. 57,36	B.
	(e) Irene.....	35,3	48,8	2,6	16,6	31,1	44,9	58,2	16. 0. 16,79				16,88			16. 1. 12,30	B.
	δ Ophiuchi.....	58,1	11,6	25,0	38,9	52,2	5,4	19,2	16. 5. 38,63				38,66	55,40		16. 6. 34,08	B.
	(f) ⊙ 2 L.....	52,8	7,1	21,2	36,1		4,8	19,1	3. 58. 35,94				35,86		1,63	3. 59. 32,09	B.
	Spica.....	44,3	57,9	11,4	25,2	39,1	52,4	6,3	13. 16. 25,23				25,29	56,88		13. 17. 22,15	B.
	(g) Bessel xiii. 444..	58,9	12,8	26,2	40,2	54,1	7,8	21,3	13. 25. 40,18				40,26			13. 26. 37,13	B.
May 23	(h) H. C. 25180.....	53,7	7,0	20,2	34,0	47,9	1,1	15,1	13. 29. 34,14				34,19			13. 30. 31,07	B.
	Bessel xiii. 1023.	15,8	29,1	43,1	57,0	11,0	24,4	38,3	13. 56. 56,96				57,03			13. 57. 53,94	B.
	Bessel xiii. 1089.	35,9	49,2	2,3	16,4	30,1	43,2	57,2	14. 0. 16,33				16,38			14. 1. 13,29	B.
	Bessel xiv. 127..	21,2	35,1	48,3	1,8	15,8	29,7	43,0	14. 7. 2,13				2,19			14. 7. 59,11	B.
	(i) Bessel xiv. 190..	28,1	42,8	55,9	10,7	23,9	38,1	51,8	14. 10. 10,18				10,28			14. 11. 7,20	B.
	(i)(k) Astræa.....		31,8		57,8		24,7		14. 14. 58,09				58,13			14. 15. 55,06	B.
	(b) ε Bootis.....	47,6	2,7	17,8	33,3	48,8	3,9	19,0	14. 37. 33,30				33,19	57,05		14. 38. 30,14	B.
	α ² Libræ.....	1,4	15,2	29,1	43,1	57,1	11,2	25,1	14. 41. 43,17				43,27	56,87		14. 42. 40,23	B.
	(l) ⊙ 1 L.....					34,9	49,1	3,7	4. 0. 20,35				20,27			4. 1. 18,13	B.
	⊙ 2 L.....	52,8	7,1	21,2	36,0	50,4	4,9	19,2	4. 2. 35,94				35,86			4. 3. 33,72	B.
May 26	(m) ⊙ 1 L.....			6,8	21,2	35,9	50,2	4,6	4. 8. 21,29		-2,0	+0,3	21,11		1,63	4. 9. 22,27	B.
	⊙ 2 L.....			22,6	37,1	51,7	6,1	20,5	4. 10. 37,15				36,97			4. 11. 38,13	B.
	α Coronæ.....	37,5	52,7	7,3	22,7	38,1	52,9	8,1	15. 27. 22,75				22,55	61,84			B.
	Irene.....	29,3	43,1	57,1	11,3	25,9	38,4	52,6	15. 56. 10,95				10,90			15. 57. 12,86	B.
	H. C. 29544.....				36,1	49,7	3,2	16,2	16. 4. 36,04				35,94			16. 5. 57,91	B.
	Antares.....	31,7	46,7	1,3	16,5	31,7	46,6	1,3	16. 19. 16,55				16,53	62,07			B.
May 28	⊙ 1 L.....					39,0	53,0	7,4	4. 16. 24,11				23,93		1,65	4. 17. 28,35	B.
	⊙ 2 L.....	57,1	11,6	26,0	40,1	55,2	9,1	24,0	4. 18. 40,44				40,26			4. 19. 44,69	B.
	α Coronæ.....	34,1	49,1	4,1	19,6	34,7	49,6	4,9	15. 27. 19,45				19,25	65,14		15. 28. 24,44	B.
	α Serpentis.....	11,8	25,3	38,8	52,7	6,1	19,5	33,1	15. 35. 52,47				52,27	65,19		15. 36. 57,47	B.
	(n) Irene.....		43,0	56,0		24,1	38,1	51,6	15. 54. 10,28				10,24			15. 55. 15,46	B.
	δ Ophiuchi.....	48,6	2,0	15,2	29,1	42,4	56,0	9,1	16. 5. 28,92				28,82	65,29		16. 6. 34,05	B.
May 31	(o) Polaris SP.....	48,8	28,5	2,0	40,5	25,5	58,5	35,0	13. 3. 42,69				53,73		1,64		B.
	Spica.....	31,1	44,7	58,2	12,1	26,0	39,7	53,2	13. 16. 12,14				12,06	70,07		13. 17. 22,16	B.
	ε Bootis.....	34,7	49,8	5,0	20,3	35,8	50,3	5,9	14. 37. 20,25				20,04	70,19		14. 38. 30,23	B.
	α ² Libræ.....	48,1	2,0	16,0	30,1	44,1	58,1	11,9	14. 41. 30,04				30,00	70,16		14. 42. 40,19	B.
	(p) Irene.....	31,1	45,0	58,8	12,6	26,7	40,1	54,1	15. 51. 12,63				12,58			15. 52. 22,85	B.
	Bessel xvi. 38...	53,1	6,7	20,2	34,7	48,3	2,1	16,0	16. 1. 34,44				34,39			16. 2. 44,67	B.
June 2	δ Ophiuchi.....	43,7	57,0	10,1	23,8	37,3	51,1	4,4	16. 5. 23,91				23,81	70,33		16. 6. 34,10	B.
	(q) ⊙ 1 L.....	55,3	10,1		39,1	53,8	8,7	23,0	4. 36. 39,21				39,03		1,55	4. 37. 51,81	B.
	⊙ 2 L.....		27,1	41,5	56,2	11,1	25,2	40,0	4. 38. 56,24				56,16			4. 40. 8,94	B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,337, -26°,913, -13°,618, +0°,060, +13°,573, +26°,892, +40°,344.

(a) 'A brighter of less N.P.D. follows.' (b) Bad definition. (c) Extremely faint: no object near this. (d) Faint. Clouds had just cleared off. In estimating the clock-rate for this day B is assumed to observe earlier than T by 0.2. (e) Faint: about Mag. 9½. (f) Too cloudy for I L: this partly without the dark glass. (g) 'One brighter of nearly the same R.A. lower in the field.' See May 19. (h) 'A fainter south-following.' (i) Extremely faint: the sky very misty. (k) Could not be observed with any certainty. (l) Unsteady. (m) Cloudy. (n) Rather faint from haze. (o) Very steady. (p) 'Good.' (q) Clouds passing.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Aimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
June 2	(a) Arcturus.....	57,2	11,5	25,7	40,1	54,6	8,5	23,1	14. 7. 40,10	-2,4	-2,0	+0,3	39,92	73,33	1,55	14. 8. 53,31			B.
	α Coronæ.....	25,8	41,1	55,8	11,0	26,2	41,2	56,4	15. 27. 11,07				10,87	73,53		15. 28. 24,35			B.
	Irene.....	36,2	50,1	4,1	18,2	32,1	45,3	59,1	15. 49. 17,87				17,82			15. 50. 31,32			B.
	(b) Antares.....	20,1	35,2	50,0	5,3	20,1	35,2	50,1	16. 19. 5,15				5,13	73,55		16. 20. 18,66			B.
June 4	⊙ 1 L.....	4,9	19,3	33,9	48,8	3,3	17,8	32,3	4. 44. 48,62			-2,7	48,40		1,40	4. 46. 4,20			B.
	⊙ 2 L.....					20,2	34,9	49,1	4. 47. 5,51				5,29			4. 48. 21,09			B.
	Arcturus.....	54,0	8,2	23,0	37,2	51,7	5,7	20,0	14. 7. 37,12				36,90	76,34		14. 8. 53,24			B.
	(c) α Coronæ.....		38,1	52,9	8,3	23,4	38,3		15. 27. 8,20				7,96	76,44		15. 28. 24,38			B.
	α Serpentis.....	0,7	14,2	27,8	41,4	55,2	8,6	21,9	15. 35. 41,40				41,17	76,32		15. 36. 57,60			B.
	Irene.....					41,2	55,0	8,8	15. 47. 27,27				27,20			15. 48. 43,64			B.
	Antares.....	17,2	32,1	47,0	2,2	17,2	32,2	47,2	16. 19. 2,15				2,12	76,58		16. 20. 18,59			B.
June 5	α ² Libræ.....	40,8	54,6	8,2	22,5	36,7	50,2	4,2	14. 41. 22,46				22,40	77,74	1,36				B.
	(d) α Serpentis.....	59,2	12,8	26,2	40,0	53,6	7,1	20,6	15. 35. 39,92				39,69	77,80					B.
June 14	⊙ 1 L.....	8,2	23,0	37,2	52,3	7,0	21,7	36,2	5. 25. 52,23			-2,2	52,04		1,68	5. 27. 22,89			B.
	⊙ 2 L.....	26,1	40,2	55,1	10,1	24,8	39,1	54,1	5. 28. 9,92				9,73			5. 29. 40,58			B.
June 16	(d)(e) ⊙ 2 L.....	41,0		10,0	25,1	41,0	54,4	9,3	5. 36. 25,23			+0,3	25,04			5. 37. 59,26			B.
	(f) Polaris SP.....			47,5	25,8	14,0		25,5	13. 3. 29,65				41,09						B.
	(g) Spica.....	6,2	20,0	33,5	47,4	1,2	14,6	28,3	13. 15. 47,32				47,24	94,77		13. 17. 22,00			B.
	(h) ε Bootis.....	10,0	25,2	40,3	55,6	10,8	25,8	41,0	14. 36. 55,53				55,31	94,83		14. 38. 30,16			B.
	(d) α ² Libræ.....	23,7	37,3	51,3	5,3	19,4	33,1	47,2	14. 41. 5,33				5,29	94,84		14. 42. 40,15			B.
	α Coronæ.....	4,3	19,5	34,3	49,8	5,0	20,0	35,0	15. 26. 49,70				49,49	94,89		15. 28. 24,40			B.
	α Serpentis.....		55,6	9,1	22,8	36,5	49,9		15. 35. 22,78				22,57	94,93		15. 36. 57,49			B.
	(i) Irene.....	19,8	34,0	48,0	1,8	15,9	29,8	43,8	15. 38. 1,87				1,83			15. 39. 36,75			B.
	α Herculis.....	36,7	50,3	4,3	18,2	32,1	46,2	0,0	17. 6. 18,26				18,04	95,08		17. 7. 53,07			B.
June 17	(k) ⊙ 2 L.....		3,1	18,1	33,0	47,6	2,1		5. 40. 32,78				32,59		1,67	5. 42. 8,50			B.
	ε Bootis.....	8,2	23,3	38,6	53,9		24,2	39,1	14. 36. 53,77				53,55	96,58		14. 38. 30,09			B.
	α ² Libræ.....	22,0	36,1	49,6	3,8	17,7	31,7	45,3	14. 41. 3,74				3,70	96,43		14. 42. 40,24			B.
	H. C. 28282.....	11,8	26,1	40,8	55,7	10,0	24,9	39,1	15. 22. 55,49				55,47			15. 24. 32,06			B.
	α Coronæ.....	2,8	17,8	32,7	48,0	3,1	18,1	33,1	15. 26. 47,95				47,74	96,63		15. 28. 24,34			B.
	H. C. 28560.....	59,1	14,2	28,8	43,3	58,0	12,3	26,9	15. 31. 43,23				43,21			15. 33. 19,81			B.
	(l)(m) Irene.....	42,2	55,3	9,8	23,6	37,8	51,2	5,1	15. 37. 23,57				23,52			15. 39. 0,13			B.
	H. C. 28966.....	40,1	54,2	9,0	23,9	38,2	53,1	7,3	15. 46. 23,68				23,66			15. 48. 0,28			B.
	H. C. 29130.....	20,0	34,0	48,0	2,3	16,8	31,0	45,0	15. 52. 2,44				2,41			15. 53. 39,03			B.
	H. C. 29306.....	24,2	38,6	52,3	7,0	21,0	35,0	49,1	15. 57. 6,74				6,71			15. 58. 43,34			B.
	Antares.....	57,2	12,3	27,2	42,1	57,1	11,9	27,2	16. 18. 42,14				42,12	96,67		16. 20. 18,77			B.
	B.A.C. 5564.....	38,1	53,1	8,0	23,0	38,1	53,1	8,0	16. 29. 23,05				23,03			16. 30. 59,70			B.
	H. C. 30381.....	32,0	46,2	0,6	15,1	29,4	43,9	58,2	16. 33. 15,06				15,03			16. 34. 51,70			B.
	(n) H. C. 30675.....	50,1	6,1	20,9	36,1	51,1	6,2	21,2	16. 43. 35,96				35,95			16. 45. 12,63			B.
	H. C. 30809.....	25,7	40,8	55,2	10,0	24,6	39,2	54,1	16. 48. 9,94				9,92			16. 49. 46,61			B.
June 19	⊙ 1 L.....	46,5	1,0	15,7	30,9	45,1	0,0	14,8	5. 46. 30,57				30,38		1,53	5. 48. 9,67			B.
	⊙ 2 L.....	4,1	19,0	33,3	48,7	3,2	18,0	32,7	5. 48. 48,43				48,24			5. 50. 27,53			B.
	Arcturus.....	30,7	44,9	59,0	13,6	28,0	42,0	56,3	14. 8. 13,50				13,31	39,83		14. 8. 53,13			B.
	α Coronæ.....	59,1	14,1	29,2	44,9	0,0	14,9	30,0	15. 27. 44,60				44,39	39,97		15. 28. 24,30			B.
	(l) Irene.....	31,8	45,0	58,8	12,4	26,2	40,7	54,2	15. 37. 12,73				12,68			15. 37. 52,60			B.
	H. C. 28901.....	1,0	15,1	29,0	43,8	57,9	12,0	26,1	15. 44. 43,56				43,53			15. 45. 23,45			B.
	H. C. 29001.....	37,1	51,7	6,0	20,1	35,1	49,1	3,4	15. 48. 20,35				20,32			15. 49. 0,25			B.
	H. C. 29038.....			25,1	39,8	54,1	8,1	22,7	15. 49. 39,60				39,57			15. 50. 19,50			B.
	δ Ophiuchi.....	14,1	27,6	40,9	54,3	8,1	21,2	34,9	16. 5. 54,44				54,33	39,91		16. 6. 34,28			B.
	B.A.C. 5436.....	3,7	18,0	32,0	46,7	1,0	15,1	29,4	16. 9. 46,56				46,53			16. 10. 26,48			B.
	(o) * N.P.D. 116°.13'	20,0	35,1	49,9	5,0	20,1	35,0	50,1	16. 16. 5,03				5,01			16. 16. 44,97			B.
	Antares.....	54,1	8,9	23,7	39,0	54,0	8,6	23,7	16. 19. 38,86				38,84	39,96		16. 20. 18,80			B.
	B.A.C. 5573.....	19,9	33,9	48,0	2,1	16,2	30,5	44,9	16. 32. 2,21				2,18			16. 32. 42,15			B.
	25 Scorpii.....	21,8	36,9	51,3	6,2	21,2	36,1	51,0	16. 37. 6,36				6,34			16. 37. 46,32			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',337, -26',913, -13',618, +0',060, +13',573, +26',892, +40',344.

June 19, 8^h, just before the observation of Arcturus, Hardy was put forward 1^m.

(a) Very steady: the evening cloudy. (b) Much obscured by cloud. (c) Great motion. (d) Cloudy. (e) The other Limb was hid by cloud.
 (f) 'Good.' (g) Bad definition. (h) Clouds passing. (i) Satisfactorily observed, though faint. (k) Partly without the dark glass: 1 L. quite hid.
 The noted times have been increased 2^s. (l) Very faint. (m) Wire III was set down 8,8 and altered at the time. (n) 'A fainter of somewhat greater N.P.D. precedes.' (o) 'Higher in the field than Antares.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
June 19	H. C. 30609	15,0	30,0	45,0	0,1	15,2	30,3	45,2	16.42. 0,11	-2,4	-2,2	+0,3	0,10		1,53	16.42. 40,08			B.
	H. C. 30744	1,1	15,1	29,1	43,3	57,9	11,7	25,9	16.46. 43,44				43,41			16.47. 23,40			B.
	H. C. 30887	6,1	21,2	36,1	51,2	6,2	21,3	36,3	16.51. 51,20				51,19			16.52. 31,19			B.
	H. C. 31000	26,1	40,2	54,1	8,8	22,9	37,0	50,9	16.55. 8,58				8,55			16.55. 48,55			B.
	α Ophiuchi.....	42,0	55,3	9,1	23,2	37,0	50,9	4,6	17.27. 23,23				23,00	40,03		17.28. 3,03			B.
	Hebe.....	17,1	30,7	44,0	58,1	11,3	24,9	38,2	19.36. 57,76				57,67			19.37. 37,84			B.
	α Aquilæ.....	11,8	25,3	39,1	52,6	6,0	19,7	33,2	19.42. 52,53				52,32	40,16		19.43. 32,50			B.
June 20	α Coronæ.....	58,0	13,0	27,8	43,3	58,6	13,3	28,7	15.27. 43,24				43,10	41,26	1,42				B.
	Rigel.....	59,0	12,3	25,9	39,8	53,4	6,9	20,5	5. 6. 39,69				39,66	42,20	1,38	5. 7. 21,81			B.
June 21	(a) \odot 1 L.....	2,2	17,0	31,7	46,8	1,4	16,1	30,7	5.55. 46,56				46,43			5.56. 28,63			B.
	\odot 2 L.....	20,3	35,0	49,7	4,4	19,1	33,9	48,4	5.58. 4,40				4,27			5.58. 46,47			B.
	Irene.....	26,0	40,4	54,2	7,3	22,0	35,7	50,2	15.36. 7,98				7,09			15.36. 50,75			B.
	δ Ophiuchi.....	11,2	24,5	37,8	51,5	5,1	18,2	31,8	16. 5. 51,44				51,39	42,85		16. 6. 34,18			B.
	(b) Antares .....	....	....	21,0	36,0	51,1	6,0	21,1	16.19. 36,07				36,10	42,70		16.20. 18,92			B.
	B.A.C. 5573 ....	....	31,1	45,0	59,2	13,3	27,2	....	16.31. 59,16				59,19			16.32. 42,00			B.
June 23	(b) Polaris SP.....	....	....	42,5	....	....	41,0	19,5	13. 4. 24,77				35,79		1,40				B.
	μ^1 Sagittarii.....	....	39,0	53,2	7,8	22,2	36,4	....	18. 4. 7,72				7,75	45,51					B.
June 24	(b) \odot 1 L.....	....	....	56,1	11,2	26,0	40,8	....	6. 8. 11,18				11,05		1,42	6. 8. 57,41			B.
	\odot 2 L.....	45,0	....	14,1	29,0	44,0	....	13,1	6.10. 29,04				28,91			6.11. 15,28			B.
	H. C. 29372.....	14,2	28,2	42,4	57,1	11,1	25,4	39,8	15.59. 56,89				56,92			16. 0. 43,87			B.
	δ Ophiuchi.....	6,8	20,2	33,7	47,2	1,0	14,2	27,8	16. 5. 47,27				47,22	47,02		16. 6. 34,17			B.
	(b) B.A.C. 5436.....	56,9	11,0	25,1	39,4	54,1	8,1	....	16. 9. 39,58				39,61			16.10. 26,57			B.
	(b) α Ophiuchi.....	35,1	48,8	2,2	16,3	30,2	44,0	57,8	17.27. 16,34				16,18	46,88		17.28. 3,21			B.
	Hebe.....	47,8	1,1	14,3	28,3	42,1	55,3	9,2	19.33. 28,30				28,27			19.34. 15,43			B.
	γ Aquilæ.....	44,1	58,1	11,5	25,3	39,2	52,7	6,2	19.38. 25,30				25,13	47,24		19.39. 12,29			B.
June 25	(c) \odot 1 L.....	35,2	50,0	4,4	19,8	34,2	49,0	3,7	6.12. 19,48				19,35		1,52	6.13. 7,09			B.
	\odot 2 L.....	53,1	8,0	22,1	37,1	52,1	6,3	21,3	6.14. 37,15				37,02			6.15. 24,77			B.
	ϵ Bootis.....	....	11,2	26,8	42,0	57,2	12,2	....	14.37. 41,88				41,72	48,34		14.38. 30,00			B.
	α^2 Libræ.....	10,0	23,9	37,8	52,0	6,0	19,9	33,8	14.41. 51,91				51,92	48,17		14.42. 40,20			B.
	B.A.C. 5333.....	36,6	50,8	4,9	19,1	33,7	47,8	2,1	15.56. 19,29				19,32			15.57. 7,68			B.
	H. C. 29372.....	13,0	27,1	41,1	55,2	10,0	24,1	38,2	15.59. 55,53				55,56			16. 0. 43,92			B.
	B.A.C. 5408.....	34,9	49,0	3,0	17,3	31,6	45,8	59,6	16. 5. 17,32				17,35			16. 6. 5,72			B.
	B.A.C. 5436.....	55,1	9,8	23,7	38,1	52,8	6,7	21,0	16. 9. 38,17				38,20			16.10. 26,57			B.
	H. C. 30069.....	21,0	35,7	50,3	5,0	19,7	34,4	49,1	16.24. 5,03				5,06			16.24. 53,45			B.
	ζ Aquilæ.....	5,9	19,5	33,2	47,2	1,2	14,8	28,8	18.57. 47,23				47,07	48,58		18.58. 35,62			B.
	(d) Hebe.....	1,7	15,1	28,3	42,1	56,0	9,3	23,1	19.32. 42,23				42,20			19.33. 30,79			B.
	γ Aquilæ.....	43,1	56,5	10,0	24,1	37,8	51,1	5,0	19.38. 23,94				23,77	48,62		19.39. 12,36			B.
June 26	(e) \odot 1 L.....	42,9	57,6	12,2	27,1	41,9	56,2	11,0	6.16. 26,99				26,86		1,57	6.17. 16,19			B.
	\odot 2 L.....	1,0	15,5	30,0	45,2	0,0	14,3	29,0	6.18. 45,00				44,87			6.19. 34,20			B.
	ϵ Bootis.....	54,9	10,1	25,0	40,4	55,7	10,9	....	14.37. 40,42				40,26	49,79		14.38. 30,14			B.
	α^2 Libræ.....	8,5	22,4	36,1	50,3	4,4	18,1	32,1	14.41. 50,27				50,28	49,80		14.42. 40,16			B.
	H. C. 29372.....	11,2	25,5	39,6	54,1	8,2	22,3	36,6	15.59. 53,93				53,96			16. 0. 43,93			B.
	B.A.C. 5408.....	33,1	47,3	1,2	15,7	30,0	44,1	58,0	16. 5. 15,63				15,66			16. 6. 5,63			B.
	B.A.C. 5436.....	53,8	8,1	22,0	36,6	51,0	5,1	19,2	16. 9. 36,54				36,57			16.10. 26,55			B.
	H. C. 29906.....	38,3	53,2	8,1	23,1	38,1	53,0	7,8	16.18. 23,08				23,11			16.19. 13,10			B.
	Antares.....	....	....	....	28,6	43,8	58,7	13,7	16.19. 28,68				28,71	50,10		16.20. 18,70			B.
	H. C. 30069.....	19,2	33,9	48,3	3,1	18,3	33,1	47,6	16.24. 3,35				3,38			16.24. 53,37			B.
	α Herculis.....	21,5	35,2	49,1	3,3	17,2	31,2	45,1	17. 7. 3,23				3,07	50,10		17. 7. 53,11			B.
	H. C. 31429.....	14,7	29,1	43,0	57,4	11,8	26,1	40,1	17. 9. 57,46				57,49			17.10. 47,53			B.
	H. C. 31552.....	36,0	50,2	4,2	19,1	33,6	47,7	2,0	17.13. 18,98				19,01			17.14. 9,06			B.
June 27	(f) \odot 1 L.....	50,4	5,3	19,8	34,7	49,3	4,0	18,6	6.20. 34,58				34,45		1,59	6.21. 25,31			B.
	\odot 2 L.....	8,2	23,1	37,5	52,3	7,2	22,1	36,3	6.22. 52,38				52,25			6.23. 43,11			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40",337, -26",913, -13",618, +0",060, +13",573, +26",892, +40",344.

(a) The counting was 1st slow. (b) Cloudy. (c) Faint from cloud. (d) 'A fainter object preceded 15.' (e) Extremely unsteady.
(f) Could scarcely be observed, so badly defined.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"		s.	s.	s.	h.	m.	s.
June 27	α Coronæ.....	47,7	2,9	17,4	33,1	48,2	3,2	18,4	15.27.32,98	-2,4	-1,5	+0,9	32,84	51,48	1,59	15.28.24,30			B.
	α Serpentis.....	25,4	39,1	52,4	6,1	19,9	33,2	46,4	15.36.6,07				5,92	51,56		15.36.57,39			B.
	H. C. 31646.....	6,4	19,1	34,5	49,0	3,0	16,8	31,2	17.15.48,57				48,60			17.16.40,18			B.
	H. C. 31834.....	45,9	0,1	14,0	28,2	42,4	56,6	11,1	17.21.28,33				28,35			17.22.19,94			B.
	α Ophiuchi.....	30,3	44,0	57,9	12,0	25,7	39,2	53,1	17.27.11,74				11,58	51,50		17.28.3,18			B.
	H. C. 32119.....	....	34,9	....	4,2	18,6	33,1	47,9	17.30.4,02				4,05			17.30.55,65			B.
	Rigel.....	48,6	2,5	16,0	29,9	43,3	57,0	10,2	5.6.29,65				29,62	52,35	1,64	5.7.22,02			B.
June 28	⊙ 1 L.....	58,1	13,0	27,5	42,5	57,2	11,9	26,5	6.24.42,38				42,25			6.25.34,74			B.
	⊙ 2 L.....	16,0	30,4	45,2	0,1	15,0	29,3	44,2	6.27.0,02				59,89			6.27.52,38			B.
	H. C. 30544.....	54,0	8,7	23,2	38,1	53,1	8,1	22,8	16.39.38,29				58,32			16.40.31,51			B.
	H. C. 30675.....	34,0	49,1	4,3	19,7	34,8	49,4	5,1	16.44.19,49				19,54			16.45.12,73			B.
	H. C. 31000.....	13,1	27,1	41,2	55,3	10,0	23,7	38,0	16.54.55,49				55,52			16.55.48,72			B.
	H. C. 31126.....	19,1	34,1	48,5	3,3	18,1	32,8	47,6	16.59.3,35				3,38			16.59.56,59			B.
	H. C. 31255.....	10,3	25,0	39,1	54,1	8,2	22,8	37,2	17.2.53,81				53,84			17.3.47,05			B.
	H. C. 31337.....	54,2	9,0	23,2	38,0	52,4	7,1	21,3	17.6.37,89				37,92			17.7.31,14			B.
	H. C. 31429.....	11,9	25,8	40,1	54,3	8,8	22,8	37,0	17.9.54,39				54,42			17.10.47,64			B.
	ζ Aquilæ.....	1,0	14,8	28,5	42,3	56,7	....	24,2	18.57.42,53				42,37	53,32		18.58.35,71			B.
	H. C. 36016.....	38,6	53,2	7,2	22,1	37,0	51,2	5,8	19.4.22,15				22,18			19.5.15,53			B.
	H. C. 36239.....	13,5	27,7	42,0	56,2	10,7	24,8	39,1	19.8.56,29				56,32			19.9.49,68			B.
	(a) H. C. 36507.....	53,1	7,8	22,0	37,1	51,7	6,1	20,7	19.14.36,93				36,96			19.15.30,32			B.
	B.A.C. 6666.....	2,5	17,5	32,3	47,8	3,1	18,0	33,0	19.19.47,75				47,80			19.20.41,17			B.
	(b) H. C. 36961.....	52,2	6,2	20,2	34,1	48,4	2,3	16,2	19.24.34,23				34,24			19.25.27,62			B.
	Hebe.....	35,7	49,2	2,8	16,2	30,2	43,5	57,1	19.30.16,39				16,36			19.31.9,74			B.
	γ Aquilæ.....	38,0	51,7	5,3	19,2	33,1	46,6	0,2	19.38.19,16				18,99	53,45		19.39.12,38			B.
	(c) α Aquilæ.....	58,7	11,9	25,8	39,3	53,3	6,3	20,3	19.42.39,38				39,23	53,41		19.43.32,62			B.
June 30	(d) ⊙ 1 L.....	11,0	25,8	40,3	55,2	9,8	24,6	39,2	6.33.55,13			-1,8	54,98		1,50	6.33.52,42			B.
	⊙ 2 L.....	28,8	43,2	57,8	12,8	27,5	42,1	56,7	6.36.12,70				12,55			6.36.9,99			B.
	ϵ Bootis.....	46,7	1,9	16,8	32,1	47,6	2,7	17,8	14.38.32,23				32,05	-2,04					B.
	α^2 Libræ.....	0,2	14,2	28,0	42,1	56,2	10,0	24,0	14.42.42,10				42,11	-2,05					B.
	(e) Hebe.....	50,8	4,2	....	....	....	....	....	19.29.31,42				31,38			19.29.29,63			B.
July 1	(f)(g) Sirius.....	....	....	19,4	33,8	....	....	....	6.38.33,67				33,68	0,37	1,33				B.
July 2	(f)(h) ⊙ 1 L.....	25,0	39,4	....	8,9	....	....	....	6.42.8,85				8,70			6.42.9,18			B.
	⊙ 2 L.....	42,1	....	....	....	41,0	55,7	10,1	6.44.26,20				26,05			6.44.26,53			B.
	(f)(g) Procyon.....	....	2,1	15,2	28,9	....	....	....	7.31.28,96				28,81	0,52		7.31.29,34			B.
	(f)) 1 L.....	39,7	53,9	....	22,3	....	....	....	9.53.22,47				22,29			9.53.22,95			B.
	(g) Regulus.....	43,9	57,6	11,2	25,2	39,0	52,7	6,4	10.0.25,14				24,96	0,70		10.0.25,62			B.
	(i) B.A.C. 5383.....	37,8	51,9	6,0	20,3	34,8	48,9	3,1	16.3.20,40				20,42			16.3.21,42			B.
	(g) δ Ophiuchi.....	52,8	6,1	19,7	33,3	47,0	0,2	13,8	16.6.33,27				33,21	1,01		16.6.34,21			B.
	B.A.C. 5436.....	42,6	57,0	11,1	25,7	40,0	54,1	8,2	16.10.25,53				25,55			16.10.26,56			B.
	H. C. 30069.....	8,0	....	37,4	52,3	7,8	22,0	37,6	16.24.52,61				52,64			16.24.53,66			B.
	B.A.C. 5564.....	14,0	28,9	43,4	59,0	14,2	28,7	43,3	16.30.58,79				58,82			16.30.59,85			B.
July 3	(k) ⊙ 1 L.....	31,2	46,1	0,6	15,4	30,0	44,8	59,2	6.46.15,33				15,18		1,25	6.46.16,89			B.
	⊙ 2 L.....	48,8	3,3	18,0	33,0	47,5	2,0	16,7	6.48.32,75				32,60			6.48.34,31			B.
July 4	(l) ⊙ 1 L.....	38,0	52,8	7,2	22,0	36,9	51,1	5,9	6.50.21,98				21,83		1,24	6.50.24,63			B.
	⊙ 2 L.....	55,3	....	....	....	54,0	8,4	23,1	6.52.39,18				39,03			6.52.41,84			B.
	β Leonis.....	....	....	10,5	24,8	38,8	52,3	6,3	11.41.24,59				24,41	3,19		11.41.27,46			B.
	) 1 L.....	37,0	50,7	4,2	18,7	32,3	46,1	0,0	11.49.18,43				18,28			11.49.21,34			B.
	Antares.....	....	45,8	0,3	15,6	30,7	45,3	....	16.20.15,54				15,57	3,23		16.20.18,86			B.
	μ^1 Sagittarii.....	....	21,2	35,6	50,2	4,6	19,0	....	18.4.50,12				50,14	3,23		18.4.53,52			B.
	(m) ζ Aquilæ.....	50,7	5,1	18,1	32,1	46,6	0,2	14,1	18.58.32,41				32,24	3,52		18.58.35,67			B.
	H. C. 35931.....	47,2	2,1	16,6	32,1	47,1	2,0	16,8	19.3.31,98				32,01			19.3.35,44			B.
	(n) H. C. 36104.....	17,4	32,0	46,2	1,1	15,7	30,0	44,4	19.7.0,97				0,99			19.7.4,43			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40°,337, - 26°,913, - 13°,618, + 0°,060, + 13°,573 + 26°,892, + 40°,344.

(a) 'One brighter of less N.P.D. following.' (b) 'A brighter follows higher in the field.' (c) Blazing. (d) The change of clock-error since June 28 is, I think, owing to the minute-hand catching against the hour-hand. The adopted rate of June 30 is uncertain. (e) The noted times have been increased 1^m. (f) Cloudy. (g) In calculating the mean clock-error weights are given to these observations proportional to the respective number of wires. (h) Partly without the dark glass. (i) 'Preceding ν Scorpii and of less N.P.D.' (k) Cloudy at times. (l) Clouds passing. (m) Bad definition. (n) 'One follows lower in the field.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.		
		1	11	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.						"	"
July 4	H. C. 36504.....	36,1	50,8	5,2	20,0	34,8	49,1	4,1	19.15.20,01	-2,4	-1,8	+0,9	20,03		1,24	19.15.23,47	B.		
	B.A.C. 6666.....	52,1	7,2	22,1	37,8	53,1	8,2	23,1	19.20.37,66				37,70			19.20.41,15		B.	
	Hebe.....	15,1	28,4	42,1	56,0	9,3	23,1	36,3	19.25.55,76				55,72			19.25.59,17		B.	
July 5	⊙ 1 L.....	44,6	59,1	13,6	28,6	43,1	57,3	12,2	6.54.28,36				28,21	1,28	6.54.32,28	B.			
	⊙ 2 L.....	1,6	16,2	30,8	45,4	0,1	14,8	29,2	6.56.45,44				45,29		6.56.49,36		B.		
	⊙ 1 L.....	23,9	37,6	51,3	5,4	19,2	33,1	46,9	12.44.5,34				5,25		12.44.9,63		B.		
	ζ Virginis.....	22,4	35,9	49,2	2,8	16,1	29,6	43,0	13.27.2,71				2,62		13.27.7,04		B.		
	α Serpentis.....	12,3	26,0	39,1	53,2	6,8	20,1	33,8	15.36.53,04				52,88		15.36.57,41		B.		
	ζ Aquilæ.....	.....	.....	.....	31,2	45,1	59,1	12,8	18.58.31,25				31,08		18.58.35,79		B.	
	(a) H. C. 36104.....	16,1	30,3	44,2	59,8	14,2	28,3	41,8	19.6.59,39				59,41		19.7.4,13		B.		
	(b) Hebe.....	.....	33,1	.....	0,4	13,3	27,3	41,0	19.25.0,12				0,08		19.25.4,82		B.	
	γ Aquilæ.....	27,0	40,8	54,0	8,0	21,7	35,2	49,3	19.39.8,00				7,82		19.39.12,57		B.		
	α Aquilæ.....	47,3	1,0	14,2	28,0	42,0	55,3	9,0	19.43.28,12				27,95		19.43.32,70		B.		
July 10	η Ophiuchi.....	59,2	13,2	27,0	41,1	55,1	9,1	23,1	17.1.41,11	-2,0			41,11	1,39	17.1.52,19	B.			
	(c) ξ Ophiuchi.....	12,1	27,0	41,1	55,9	10,2	24,3	38,9	17.11.55,64				55,66		17.12.6,75		B.		
	⊙ 1 L.....	58,2	12,9	27,8	42,7	57,6	12,2	27,0	17.16.42,63				42,65		17.16.53,74		B.		
	(d) Hebe.....	30,7	44,2	57,8	11,7	25,2	38,8	52,1	19.20.11,50				11,46		19.20.22,67		B.		
	γ Aquilæ.....	20,2	34,2	47,9	1,7	15,2	29,1	42,3	19.39.1,51				1,32		19.39.12,55		B.		
	(e) α Aquilæ.....	41,2	54,7	7,8	21,7	35,3	49,0	2,5	19.43.21,74				21,56		19.43.32,79		B.		
	(e) β Aquilæ.....	10,1	23,8	37,2	50,8	4,1	17,8	31,1	19.47.50,70				50,54		19.48.1,78		B.		
July 12	α Herculis.....	57,9	11,7	25,2	39,4	53,4	7,2	21,2	17.7.39,43				39,24	13,92	1,38		B.		
	(f) H. C. 31552.....	12,3	26,4	40,8	55,2	9,9	23,9	38,2	17.13.55,24				55,26			17.14.9,19		B.	
	B.A.C. 5896.....	31,1	46,1	0,4	15,8	30,8	45,2	0,0	17.19.15,63				15,66			17.19.29,60		B.	
	ο Sagittarii.....	49,8	4,5	18,7	33,4	48,1	2,5	17,0	18.55.33,43				33,45			18.55.47,48		B.	
	(g) π Sagittarii.....	59,1	13,3	27,8	42,2	57,0	11,1	25,8	19.0.42,33				42,35			19.0.56,38		B.	
	⊙ 1 L.....	34,7	49,8	4,3	19,8	34,8	49,3	4,2	19.9.19,56				19,58			19.9.33,62		B.	
	⊙ 2 L.....	50,0	4,9	19,3	34,9	50,0	4,7	19,8	19.11.34,80				34,82			19.11.48,86		B.	
	Hebe.....	32,3	46,0	59,4	13,2	27,0	40,4	54,1	19.18.13,20				13,16			19.18.27,21		B.	
	(h) h ¹ Sagittarii.....	.....	17,2	32,0	47,0	2,0	16,7	.....	19.26.46,98				47,01			19.27.1,07		B.
	α Aquilæ.....	38,2	51,7	5,2	18,8	32,7	46,1	59,9	19.43.18,95				18,77			14,07			B.
July 14	α Ophiuchi.....	5,2	19,1	32,7	46,8	0,8	14,2	28,1	17.27.46,70		+0,4	46,49	16,60	1,31		B.			
July 16	α Herculis.....	52,5	6,3	20,2	34,2	48,2	2,0	16,0	17.7.34,20				33,99	19,16	1,30		B.		
	H. C. 31552.....	7,0	21,2	35,3	50,0	4,1	18,7	33,0	17.13.49,90				49,88			17.14.9,02		B.	
	B.A.C. 5896.....	25,8	40,3	55,1	10,2	25,2	40,0	55,1	17.19.10,24				10,23			17.19.29,38		B.	
	α Ophiuchi.....	2,8	16,6	30,2	44,2	58,1	11,7	25,5	17.27.44,16				43,95			19,13			B.
July 17	⊙ 2 L.....	42,0	56,1	10,7	25,3	39,6	54,2	8,7	7.45.25,23				25,05			7.45.44,98	B.		
July 18	⊙ 1 L.....	26,5	41,0	55,2	10,0	24,6	38,9	53,3	7.47.9,92				9,74	1,36	7.47.30,96	B.			
	⊙ 2 L.....	42,1	56,3	10,8	25,7	40,1	54,6	8,8	7.49.25,49				25,31		7.49.46,53		B.		
	α Ophiuchi.....	0,2	14,0	27,7	41,7	55,2	9,1	23,1	17.27.41,57				41,36		21,72			B.	
	Hebe.....	36,2	50,0	3,3	17,2	31,1	44,8	57,9	19.12.17,22				17,15				19.12.39,02	B.	
	β Aquarii.....	42,2	55,8	9,1	23,0	56,4	49,8	3,4	21.23.22,81				22,73		22,04			B.	
July 21	(i) ⊙ 1 L.....	24,2	38,8	53,0	8,0	22,2	36,4	50,7	7.59.7,62	-1,0			7,50	25,90	1,42	7.59.32,99	B.		
	⊙ 2 L.....	.....	.....	8,1	22,9	37,2	51,4	6,1	8.1.22,73				22,61			8.1.48,10		B.
	δ Ophiuchi.....	27,8	41,2	54,8	8,2	22,0	35,2	48,7	16.6.8,27				8,21			16.6.34,18		B.	
	H. C. 31646.....	31,8	46,1	0,1	14,2	28,4	42,3	56,7	17.16.14,23				14,23			17.16.40,27		B.	
	H. C. 31831.....	11,8	26,0	39,6	54,0	8,1	22,1	36,1	17.21.53,96				53,95			17.22.20,00		B.	
	H. C. 31955.....	44,3	58,7	12,3	27,0	41,1	55,1	9,3	17.25.26,83				26,83			17.25.52,88		B.	
	(k) H. C. 32045.....	36,7	51,3	6,1	21,2	36,1	50,8	5,4	17.28.21,08				21,09			17.28.47,14		B.	
	H. C. 32271.....	32,9	46,8	1,0	15,1	29,2	43,1	57,2	17.34.15,04				15,03			17.34.41,09		B.	
	Hebe.....	40,6	54,2	8,0	21,4	35,1	48,9	2,2	19.9.21,48				21,44			19.9.47,59		B.	
	γ Aquilæ.....	5,8	19,2	32,8	46,8	0,3	14,1	27,8	19.38.46,69				46,53			26,17		19.39.12,71	B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40^s.337, -26^s.913, -13^s.618, +0^s.060, +13^s.573, +26^s.892, +40^s.344.

(a) Wire VII has been increased 1^s conjecturally. (b) Bright, but clouds passing. (c) Wires VI and VII have been diminished 1^s from a consideration of the intervals. The observer thought that a second was lost. (d) Bright. (e) Bad definition. (f) 'Two fainter preceded about 1m.' (g) The noted times were 1^s greater. The counting was found to be 1^s fast, but the observer was doubtful whether the error applied to the observation. (h) Observed by mistake for h¹ Sagittarii. (i) Cloudy. (k) Faint.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
July 21	α Aquilæ.....	26,2	39,3	52,8	6,8	20,7	34,1	47,7	19.43.6,80	-2,4	-1,0	+0,4	6,65	26,26	1,42	19.43.32,84			B.
	(a) Sirius.....	25,5	39,3	53,3	7,3	21,5	35,3	49,6	6.38.7,40				7,99	26,92	1,42				T.
July 22	\odot 1 L.....	22,9	37,0	51,2	5,7	20,2	34,7	49,1	8.3.5,83				5,71			8.3.32,71			T.
	\odot 2 L.....	37,6	52,0	6,0	20,9	35,2	49,4	4,1	8.5.20,74				20,62			8.5.47,63			T.
July 25	(b)(c) \odot 1 L.....	....	28,4	....	....	12,0	26,0	40,5	8.14.57,36				57,24		1,40	8.15.28,19			T.
	\odot 2 L.....	....	....	....	11,9	26,1	....	54,6	8.17.11,70				11,58			8.17.42,53			T.
July 29	(d) \odot 2 L.....	....	....	36,9	....	5,9	19,9	34,0	8.32.51,38				51,26		1,44	8.33.27,84			T.
	(e) α Ophiuchi.....	....	58,4	12,2	26,1	40,0	53,6	7,4	17.27.26,06				25,90	37,12		17.28.3,02			T.
	β Lyræ.....	....	27,5	43,6	59,8	16,2	32,1	....	18.43.59,84				59,68	37,22		18.44.36,87			T.
	(f)(g) ζ Aquilæ.....	17,3	31,2	45,0	58,9	12,8	26,4	40,4	18.57.58,86				58,71	37,16		18.58.35,92			T.
	(f) α Aquilæ.....	....	....	42,2	56,1	9,3	23,2	36,5	19.42.55,86				55,71	37,25		19.43.32,96			T.
Aug. 2	\odot 1 L.....	25,4	39,2	53,0	....	....	36,1	50,2	8.46.7,65	-1,8			7,56		1,43	8.46.50,15			T.
	\odot 2 L.....	38,4	52,6	6,7	21,0	35,4	49,1	3,4	8.48.20,94				20,85			8.49.3,44			T.
	γ 1 L.....	54,1	7,9	21,2	....	49,4	3,3	17,0	13.19.35,50				35,49			13.20.18,35			T.
Aug. 3	α Orionis.....	....	....	....	21,3	34,8	48,3	1,8	5.46.21,17				21,06	45,34		5.47.6,33			T.
	(h) δ Ursæ Min. SP.	....	14,0	59,0	46,0	38,5	22,0	10,0	6.19.48,09				51,69						T.
	(i) Sirius.....	7,2	21,3	35,1	49,2	3,3	17,2	31,4	6.37.49,25				49,29	45,25		6.38.34,61			C.
	(i) Procyon.....	4,0	17,4	30,6	44,6	58,1	11,4	25,0	7.30.44,44				44,34	45,37		7.31.29,72			C.
	(i) Pollux.....	40,0	55,2	10,3	25,8	41,2	56,4	11,6	7.35.25,79				25,69	45,40		7.36.11,07			C.
Aug. 4	(k) \odot 1 L.....	6,8	20,9	35,0	49,7	3,8	17,5	31,8	8.53.49,36				49,26			8.54.34,72			C.
Aug. 5	Spica.....	53,4	6,8	20,5	34,2	48,1	1,7	15,3	13.16.34,29				34,30	47,17	1,39	13.17.21,44			C.
	α Coronæ.....	51,2	6,4	21,3	36,6	52,0	6,7	22,1	15.27.36,62				36,56	47,27		15.28.23,83			C.
	θ Libræ.....	52,8	7,1	20,8	35,2	49,2	3,0	16,8	15.44.34,99				35,03			15.45.22,31			C.
	γ 1 L.....	31,6	46,2	0,4	15,2	29,7	44,1	58,6	16.3.15,11				15,15			16.4.2,45			C.
	δ Ophiuchi.....	6,2	19,7	33,1	46,6	0,3	13,6	27,2	16.5.46,67				46,67	47,29		16.6.33,97			C.
	(l) χ Ophiuchi.....	55,5	9,5	23,6	37,9	52,2	6,2	20,6	16.17.37,93				37,98			16.18.25,29			C.
	(m) ϕ Ophiuchi.....	9,3	23,2	37,0	51,2	5,4	19,3	33,2	16.21.51,22				51,26			16.22.38,58			C.
Aug. 6	(n) \odot 2 L.....	58,7	....	26,5	40,8	55,0	9,1	....	9.3.40,83				40,75			9.4.29,03			C.
Aug. 7	(o) \odot 1 L.....	....	....	3,2	17,4	31,4	....	....	9.5.17,29				17,21		1,41	9.6.6,77			C.
	\odot 2 L.....	47,2	1,3	15,1	29,7	43,6	....	....	9.7.20,45				29,37			9.8.18,94			C.
	Arcturus.....	19,8	34,2	48,1	2,7	17,3	31,4	45,6	14.8.2,73				2,67	49,86		14.8.52,53			C.
	α Coronæ.....	48,6	3,5	18,4	34,0	49,2	4,2	19,3	15.27.33,88				33,82	49,97		15.28.23,76			C.
	(p) α Serpentis.....	26,6	40,2	53,4	7,3	21,0	34,4	47,9	15.36.7,26				7,16	49,94		15.36.57,11			C.
	Antares.....	43,6	58,5	13,4	28,7	43,6	58,3	13,4	16.19.28,50				28,56	49,96		16.20.18,55			C.
	θ Ophiuchi.....	19,3	34,2	48,7	3,7	18,6	33,4	48,1	17.12.3,71				3,76			17.12.53,80			C.
	δ Ophiuchi.....	44,3	59,2	13,4	28,4	43,0	58,0	12,7	17.16.28,47				28,52			17.17.18,56			C.
	(q) α Ophiuchi.....	31,5	45,4	59,2	13,0	27,0	40,5	54,2	17.27.12,97				12,87	50,06		17.28.2,93			C.
	γ 1 L.....	45,2	0,0	14,6	29,8	44,8	59,4	14,6	17.54.29,78				29,84			17.55.19,92			C.
	μ^1 Sagittarii.....	20,0	34,4	48,7	3,4	17,7	32,0	46,5	18.4.3,24				3,29	50,08		18.4.53,38			C.
	λ Sagittarii.....	13,8	28,8	43,6	58,4	13,5	28,3	43,2	18.17.58,52				58,57			18.18.48,67			C.
	(r) H. C. 34428.....	55,4	9,6	23,7	38,6	52,6	6,7	21,1	18.27.38,25				38,30			18.28.28,41			C.
	B.A.C. 6376.....	42,4	56,6	11,0	25,4	39,8	54,0	8,3	18.36.25,36				25,41			18.37.15,53			C.
	Procyon.....	....	12,0	25,3	38,9	52,3	5,9	19,3	7.30.38,86				38,78	51,00	1,45	7.31.29,71			T.
	(s) Pollux.....	....	49,8	5,0	20,4	35,8	50,7	....	7.35.20,34				20,27	50,89		7.36.11,21			T.
Aug. 8	\odot 1 L.....	23,0	37,2	51,1	5,1	19,3	33,2	47,4	9.9.5,19				5,10			9.9.56,13			T.
	α Serpentis.....	25,2	38,5	52,1	5,8	19,4	32,9	46,4	15.36.5,76				5,66	51,42		15.36.57,08			T.
Aug. 11	(t) \odot 1 L.....	43,5	57,3	11,5	25,7	39,8	53,6	7,5	9.20.25,56				25,43		1,37	9.21.20,71			C.
	(u) \odot 2 L.....	55,3	9,2	23,1	37,4	51,2	5,3	19,3	9.22.37,26				37,13			9.23.32,41			C.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40,937, -26,913, -13,618, +0,060, +13,573, +26,892, +40,344.

(a) Extremely unsteady. (b) The times have been diminished 1^s conjecturally. (c) Could not be seen with any of the dark glasses and too dazzling without: the observation was very uncertain. (d) Partly without the dark glass, but too dazzling. (e) Very faint from cloud. (f) Cloudy. (g) Very faint at times. (h) Extremely faint: wire IV very doubtful. (i) Tremor. (k) Temp. 69,0: 2 L. clouded. (l) Wire VII doubtful. (m) Temp. 62,6. (n) Much obscured by cloud: partly without the dark glass. Temp. 62,5. (o) Difficult to observe on account of clouds: wire V for each L. marked doubtful. Temp. 62,1. (p) Temp. 65,1. (q) Badly illumined field. Wire III was set down, 0,2. (r) A brighter of greater N.P.D. followed about 14^s. (s) Not seen till after wire I, clouded at wire VII. (t) Hurried at wire I, which was set down 5,5, the seconds not being taken from the clock. Temp. 63,0. (u) Wire III marked doubtful: I was hurried in using a dark glass held in the hand, the attached glasses being out of order.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		1	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		"	"	"					
Aug. 11	(a) α Coronæ	42,6	58,1	13,0	28,3	43,5	58,4	13,6	15 . 27 . 28,22	-1,8	-0,7	-0,5	28,13	55,59	1,37	15 . 28 . 23,76	C.
	(b) α Serpentis	20,9	34,4	47,9	1,5	15,2	28,6	42,2	15 . 36 . 1,53				1,39	55,65		15 . 36 . 57,03	C.
	δ Ophiuchi.....	57,9	11,3	24,6	38,3	51,8	5,1	18,6	16 . 5 . 38,23				38,17	55,71		16 . 6 . 33,84	C.
	Antares.....	37,7	52,7	7,6	23,0	37,9	52,7	7,8	16 . 19 . 22,77				22,76	55,70		16 . 20 . 18,44	C.
	29 Capricorni ...	54,3	8,2	22,0	36,2	50,2	4,1	18,2	21 . 6 . 36,17				36,16			21 . 7 . 32,11	C.
	1 Capricorni	20,8	35,0	48,7	3,2	17,4	31,3	45,5	21 . 13 . 3,13				3,11			21 . 13 . 59,07	C.
	β Aquarii.....	8,6	22,2	35,4	49,2	2,7	16,2	29,9	21 . 22 . 49,17				49,13	55,95		21 . 23 . 45,10	C.
Aug. 12	(c) \odot 1 L.....	29,6	43,5	57,2	11,4	25,6	39,5	53,5	9 . 24 . 11,47				11,34		1,41	9 . 25 . 7,95	C.
	\odot 2 L.....	40,8	54,9	8,5	22,8	36,6	50,4	4,6	9 . 26 . 22,66				22,53			9 . 27 . 19,15	C.
	Polaris SP. M....	43,0	26,4	11,0	57,2	39,0	24,5	8,7	13 . 4 . 57,98				3,58				C.
	δ Ophiuchi.....	56,4	10,0	23,3	37,0	50,6	3,8	17,4	16 . 5 . 36,93				36,87	56,99			C.
	(d) ζ Aquilæ.....	57,3	11,1	24,6	38,7	52,6	6,4	20,3	18 . 57 . 38,72				38,59	57,22			C.
	(e) Sirius.....	54,7	8,6	22,4	36,8	51,0	4,9	19,0	6 . 37 . 36,77				36,75	57,98	1,46	6 . 38 . 34,68	C.
Aug. 13	(f) Spica.....	42,1	55,8	9,2	23,3	37,0	50,4	4,1	13 . 15 . 23,13				23,09	58,29		13 . 16 . 21,42	C.
	α^2 Capricorni	9,2	23,1	36,6	50,7	4,5	18,3	32,1	20 . 8 . 50,64				50,62	58,75		20 . 9 . 49,37	C.
	(g) β Aquarii.....	....	....	32,3	46,2	59,9	13,2	26,9	21 . 22 . 46,17				46,13	(58,97)			T.
Aug. 14	(h) α^1 Capricorni....	7,9	21,6	35,4	49,4	3,2	17,1	30,8	20 . 8 . 49,35		-1,3		49,31	60,06	1,40	20 . 9 . 49,49	T.
	β Aquarii.....	4,2	17,8	31,3	44,9	58,6	12,1	25,4	21 . 22 . 44,90				44,84	60,27		21 . 23 . 45,10	T.
	Bessel xxii. 588 ..	24,7	38,6	52,1	6,0	19,9	33,4	47,2	22 . 27 . 5,99				5,94			22 . 28 . 6,26	T.
	Bessel xxii. 672 ..	58,0	12,0	25,2	39,2	53,1	6,8	20,2	22 . 30 . 39,22				39,16			22 . 31 . 39,49	T.
	Bessel xxii. 752 ..	31,4	45,1	58,5	12,6	26,2	39,8	53,4	22 . 34 . 12,43				12,37			22 . 35 . 12,70	T.
	(i) Neptune.....	26,8	40,4	53,8	7,7	21,3	35,0	48,4	22 . 40 . 7,63				7,57			22 . 41 . 7,90	T.
	(k) α Pegasi.....	40,9	54,6	8,6	22,4	36,6	50,3	4,2	22 . 56 . 22,51				22,34	60,44		22 . 57 . 22,69	T.
	(l) Sirius.....	52,1	5,9	19,6	34,0	48,2	2,0	16,2	6 . 37 . 34,00				33,97	60,80	1,38	6 . 38 . 34,76	C.
	(m) Castor .....	....	....	....	....	20,4	36,2	52,0	7 . 24 . 4,36				4,20	60,88		7 . 25 . 5,04	C.
	Procyon.....	48,7	2,3	15,5	29,2	43,0	56,3	9,7	7 . 30 . 29,25				29,09	60,81		7 . 31 . 29,93	C.
Aug. 15	(n) δ Ophiuchi.....	52,2	5,6	19,0	32,6	46,1	59,5	13,0	16 . 5 . 32,57				32,49	61,33		16 . 6 . 33,83	C.
	Antares.....	32,1	47,2	2,0	17,2	52,3	46,9	2,0	16 . 19 . 17,10				17,08	61,32		16 . 20 . 18,43	C.
Aug. 18	(o) α Ophiuchi.....	....	....	43,4	57,4	11,3	....	38,8	17 . 26 . 57,39			+1,6	57,31	65,48	1,37	17 . 28 . 2,80	T.
	B.A.C. 6217.....	....	48,2	2,7	17,8	32,9	47,6	....	18 . 11 . 17,84				17,97			18 . 12 . 23,50	T.
	(p) β Aquarii.....	....	12,2	25,6	39,3	53,0	6,2	19,8	21 . 22 . 39,26				39,32	65,81		21 . 23 . 45,03	T.
	Neptune.....	57,6	11,2	24,8	38,7	52,6	5,9	....	22 . 39 . 38,61				38,67			22 . 40 . 44,45	T.
	(q) α Pegasi.....	35,7	49,3	3,4	17,2	31,1	45,0	58,7	22 . 56 . 17,20				17,12	65,71		22 . 57 . 22,92	T.
	(q) Sirius.....	46,4	0,6	14,4	28,8	42,9	56,7	10,7	6 . 37 . 28,65				28,76	(66,11)	1,43		T.
	(q)(r)Procyon.....	43,3	56,6	10,0	23,7	37,3	50,7	4,3	7 . 30 . 23,70				23,65	66,33		7 . 31 . 30,01	C.
Aug. 19	(s) \odot 1 L.....	34,6	48,6	2,4	16,4	30,1	44,0	57,6	9 . 50 . 16,24				16,16			9 . 51 . 22,66	C.
	\odot 2 L.....	44,8	58,8	12,4	26,5	40,4	54,3	7,9	9 . 52 . 26,44				26,36			9 . 53 . 32,86	C.
	(q)(t) β Leonis.....	39,1	52,7	6,4	20,4	35,0	48,5	2,4	11 . 40 . 20,64				20,56	66,71		11 . 41 . 27,16	C.
	(q) Polaris SP. M....	30,7	18,5	3,5	45,3	28,0	15,0	59,6	13 . 4 . 48,09				58,31				C.
	Spica.....	33,6	47,2	0,7	14,7	28,5	42,1	55,7	13 . 16 . 14,64				14,70	66,61		13 . 17 . 21,40	C.
	Arcturus.....	2,6	17,0	31,2	45,6	0,2	14,2	28,5	14 . 7 . 45,62				45,58	66,77		14 . 8 . 52,33	C.
	Antares.....	26,5	41,5	56,2	11,3	26,4	41,2	56,3	16 . 19 . 11,34				11,47	66,87		16 . 20 . 18,35	C.
	(u) Eunomia.....	....	....	22,3	....	52,4	7,2	22,1	18 . 6 . 37,54				37,67			18 . 7 . 44,66	C.
	(x) B.A.C. 6217.....	....	46,4	1,4	16,3	31,2	46,0	1,1	18 . 11 . 16,31				16,44			18 . 12 . 23,43	C.
	α Aquarii.....	22,7	36,1	49,4	3,2	16,6	30,0	43,5	21 . 57 . 3,07				3,09	67,02			T.
	Neptune.....	50,3	4,1	17,4	31,3	45,0	58,5	....	22 . 39 . 31,24				31,30			22 . 40 . 38,45	T.
	α Pegasi.....	34,1	48,0	1,5	15,8	29,7	43,4	57,2	22 . 56 . 15,67				15,59	67,26			T.
	(y) Procyon.....	41,7	55,2	8,3	22,6	35,9	49,3	2,7	7 . 30 . 22,24				22,19	67,81	1,44	7 . 31 . 29,91	T.
	Pollux.....	18,0	33,2	48,2	3,9	19,2	34,4	49,6	7 . 35 . 3,78				3,70	67,72		7 . 36 . 11,42	T.
Aug. 20	(z) \odot 1 L.....	....	....	43,8	57,8	11,3	25,2	39,1	9 . 53 . 57,62				57,54			9 . 55 . 5,40	T.
	\odot 2 L.....	....	40,3	54,0	8,0	21,8	35,6	49,2	9 . 56 . 7,91				7,83			9 . 57 . 15,70	T.
	(aa)Eunomia.....	....	1,2	16,3	31,7	46,4	1,3	....	18 . 6 . 31,38				31,51			18 . 7 . 39,87	T.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^{\circ}337$, $-26^{\circ}913$, $-13^{\circ}618$, $+0^{\circ}060$, $+13^{\circ}573$, $+26^{\circ}892$, $+40^{\circ}344$.

(a) Temp. $66^{\circ}0$. (b) Wires IV and V were set down 51,5 and 5,2: counting corrected by looking at the clock. (c) Great waving. Temp. $65^{\circ}0$.
 (d) Temp. $68^{\circ}0$. (e) Tremor. Wire III was set down 23,4. (f) Wire IV doubtful from cloud. (g) Not good: the observer fatigued. (h) In calculating the clock-rates from observations of C and T, no allowance is made for difference of personal equation, which appears to be very small. See Introduction.
 (i) 'Good observation.' (k) The counting was 10^s fast after wire I. (l) Tremor. (m) Cloudy. (n) Temp. $66^{\circ}2$. (o) Often hid by cloud.
 (p) Bad definition. (q) Great unsteadiness. (r) Very faint from thin cloud. Temp. $69^{\circ}0$. (s) Vibrating. (t) Observed at first hurriedly: not placed till after wire III between the horizontal wires. (u) I was confused by wrong setting: wires III and V were set down 52,3 and 8,4, neither being taken from the clock, and the counting for wires VI and VII was found to be 3^s slow. (x) Bad illumination. Wire II was set down hurriedly 10,4, the seconds not being taken from the clock. (y) Unsteady. (z) Observed confusedly, and at first not well in focus. (aa) Good.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.	
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.						
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.						"
Aug. 20	β Lyrae.....	40,3	56,2	12,1	28,3	44,4	0,4	16,6	18. 43. 28,33	-1,8	-1,3	+1,6	28,23	68,43	1,44	18. 44. 36,62	T.	
	(a) γ Aquilæ.....	23,2	37,1	50,5	4,3	18,1	31,8	45,4	19. 38. 4,34				4,26	68,43		19. 39. 12,71	T.	
	α Aquilæ.....	43,9	57,5	11,0	24,7	38,2	51,7	5,3	19. 42. 24,61				24,54	68,39		19. 43. 32,99	T.	
	(a) β Aquilæ.....	12,9	26,4	39,7	53,5	7,1	20,4	33,9	19. 46. 53,41				53,36	68,44		19. 48. 1,82	T.	
	(a) Aldebaran.....	....	....	0,4	14,6	28,7	42,4	56,3	4. 26. 14,48				14,41	69,10	1,40	4. 27. 23,36	T.
	(a)(b) 2 L.....	....	4,5	18,8	33,6	48,1	2,4	17,2	4. 45. 33,52				33,46			4. 46. 42,43	T.
	(b) Rigel.....	....	46,9	0,4	14,4	28,0	41,5	....	5. 6. 14,24				14,30	68,95		5. 7. 23,29	T.
	α Orionis.....	17,2	30,6	44,2	58,0	11,5	25,1	38,3	5. 45. 57,85				57,78	69,06		5. 47. 6,81	T.	
	Sirius.....	43,9	57,7	11,6	....	....	....	7,9	6. 37. 25,85				25,96	68,95		6. 38. 35,04	T.
	(a)(c) Procyon.....	....	54,0	7,3	21,0	34,5	48,0	1,4	7. 30. 20,94				20,89	69,13		7. 31. 29,98	C.
Aug. 21	(d) \odot 1 L.....	57,4	11,1	24,8	39,0	52,8	6,4	20,4	9. 57. 38,85				38,77			9. 58. 48,00	C.	
	\odot 2 L.....	7,4	21,2	35,0	49,0	2,7	16,4	30,3	9. 59. 48,86				48,78			10. 0. 58,01	C.	
	Arcturus.....	0,0	14,2	28,2	42,8	57,4	11,3	25,6	14. 7. 42,78				42,74	69,58		14. 8. 52,21	C.	
	(a) ϵ Bootis.....	....	49,4	4,3	19,8	35,0	50,1	5,3	14. 37. 19,73				19,65	69,58		14. 38. 29,15	C.
	(e) Antares.....	23,8	38,7	53,5	8,8	23,8	38,5	53,6	16. 19. 8,67				8,80	69,50		16. 20. 18,40	C.	
	(f) μ^1 Sagittarii.....	0,4	14,6	28,9	43,5	58,1	12,3	26,7	18. 3. 43,50				43,62	69,61		18. 4. 53,32	C.	
	(g) B.A.C. 6217.....	28,8	43,8	58,6	13,4	28,4	43,2	58,1	18. 11. 13,47				13,60			18. 12. 23,31	C.	
	(h) β Aquarii.....	54,5	8,1	21,4	35,3	48,8	2,2	15,8	21. 22. 35,16				35,22	(69,92)		21. 23. 45,15	T.	
	(h) Neptune.....	....	49,2	2,5	16,3	29,8	43,6	....	22. 39. 16,28				16,34			22. 40. 26,35	T.
	Aug. 22	(i) \odot 1 L.....	38,2	52,0	5,4	19,5	33,4	47,3	0,7	10. 1. 19,52			-1,0	+1,1	19,43		1,48	10. 2. 30,08	C.
(k) \odot 2 L.....		48,1	....	....	....	....	56,7	10,6	10. 3. 29,27				29,18			10. 4. 39,83	C.
(l) Ennomia.....		41,3	56,2	11,0	26,3	41,4	56,3	11,2	18. 6. 26,25				26,35			18. 7. 37,50	C.	
B.A.C. 6217.....		27,4	42,2	56,7	12,0	26,9	41,6	56,5	18. 11. 11,90				12,00			18. 12. 23,15	C.	
ζ Aquilæ.....		43,2	56,9	10,4	24,5	38,5	52,2	6,0	18. 57. 24,53				24,45	71,27		18. 58. 35,65	C.	
γ Aquilæ.....		20,6	34,2	47,7	1,6	15,4	28,8	42,4	19. 38. 1,53				1,44	71,24		19. 39. 12,68	C.	
α Aquilæ.....		41,1	54,5	8,1	21,7	35,5	49,0	2,4	19. 42. 21,75				21,67	71,25		19. 43. 32,92	C.	
β Aquilæ.....		10,0	23,5	36,9	50,7	4,2	17,5	31,2	19. 46. 50,57				50,51	71,28		19. 48. 1,76	C.	
α^2 Capricorni....		56,8	10,5	24,1	38,2	52,1	5,7	19,4	20. 8. 38,12				38,19	71,17		20. 9. 49,46	C.	
Aug. 23		(m) δ Ophiuchi.....	40,7	54,2	7,6	21,3	34,7	48,0	1,5	16. 5. 21,14				21,16	72,54	1,46	16. 6. 33,72	C.
	Antares.....	20,7	35,6	50,3	5,6	20,8	35,4	50,4	16. 19. 5,55				5,65	72,62		16. 20. 18,22	C.	
	α Herculis.....	58,3	12,4	26,1	40,2	54,2	7,9	21,8	17. 6. 40,12				40,04	72,69		17. 7. 52,66	C.	
	α Aquilæ.....	39,5	53,2	6,5	20,3	34,1	47,5	1,1	19. 42. 20,31				20,22	72,69		19. 43. 33,00	C.	
	α Aquarii.....	17,1	30,3	43,6	57,4	11,0	24,3	37,5	21. 56. 57,32				57,33	72,80		21. 57. 57,32	T.	
	Neptune.....	....	34,1	47,6	1,3	15,1	28,7	....	22. 39. 1,36				1,40			22. 40. 14,28	T.
	α Pegasi.....	28,3	42,2	56,0	10,1	24,1	37,8	51,8	22. 56. 10,04				9,96	72,93		22. 57. 10,04	T.	
Aug. 24	Procyon.....	34,8	48,4	1,6	15,4	29,2	42,5	55,9	7. 31. 15,40				15,34	14,77	1,33	7. 31. 30,14	C.	
	(n) Pollux.....	10,9	....	....	....	12,3	27,4	42,5	7. 35. 56,78				56,71	14,83		7. 36. 11,51	C.
Aug. 25	(o) \odot 1 L.....	37,5	50,9	4,7	18,5	32,5	46,2	0,0	10. 13. 18,62				18,53			10. 13. 33,48	C.	
	\odot 2 L.....	47,1	....	14,3	28,2	42,0	55,7	9,3	10. 15. 28,19				28,10			10. 15. 43,05	C.
	(p) Polaris SP. M....	29,0	13,5	58,5	....	8,7	53,5	37,0	13. 5. 44,75				53,56			13. 5. 44,75	C.
	Spica.....	25,2	38,8	52,3	6,1	20,0	33,5	47,2	13. 17. 6,16				6,20	15,05		13. 17. 21,32	C.	
	(q) Arcturus.....	54,4	8,5	22,5	37,3	51,7	5,7	20,1	14. 8. 37,17				37,12	15,15		14. 8. 52,28	C.	
Aug. 26	(r)(s) Aquilæ.....	37,4	51,4	5,3	19,2	33,0	....	0,8	18. 58. 19,13				19,05	16,62	1,28	18. 58. 19,13	B.
	σ Aquarii.....	49,7	3,2	16,7	30,8	44,7	58,2	12,1	22. 22. 30,77				30,82			22. 22. 47,69	B.	
	ζ Pegasi.....	6,4	20,0	33,3	47,4	1,3	14,7	28,2	22. 33. 47,33				47,24			22. 34. 4,12	B.	
	Neptune.....	58,1	11,3	24,7	39,0	52,7	6,3	19,7	22. 39. 38,83				38,87			22. 39. 55,76	B.	
	α Pegasi.....	24,3	38,3	51,8	6,3	20,2	33,8	47,5	22. 57. 6,03				5,95	16,97		22. 57. 6,03	B.	
Aug. 28	α Coronæ.....	19,2	34,3	49,1	4,5	19,7	34,8	49,9	15. 28. 4,50			-1,9	4,38	19,03	1,33	15. 28. 23,38	C.	
	α Serpentis.....	57,2	10,7	24,1	37,9	51,5	5,0	18,5	15. 36. 37,85				37,73	19,06		15. 36. 56,73	C.	
	α Ophiuchi.....	2,3	16,2	29,6	43,6	57,5	11,2	25,1	17. 27. 43,64				43,50	19,14		17. 28. 2,61	C.	
	γ Sagittarii.....	42,0	56,6	11,2	26,2	41,0	55,5	10,3	17. 53. 26,12				26,20			17. 53. 45,33	C.	
	(t) B.A.C. 6111.....	0,7	15,5	30,2	45,2	0,0	14,7	29,4	17. 55. 45,10				45,18			17. 56. 4,31	C.	

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40°, 337, - 26°, 913, - 13°, 618, + 0°, 060, + 13°, 573, + 26°, 892, + 40°, 344. Aug. 24, 21^h, Hardy was put forward 1^m.

(a) Cloudy. (b) Faint. (c) Great motion. (d) Temp. 66°.3. (e) Temp. 69°.3. (f) Eunomia coming shortly after this was accidentally missed. (g) The first four wires not taken from the clock; the counting for the rest was found to be 1^s fast. (h) The times are corrected by + 0°.04 for difference of personal equation. See Introduction. (i) Wire VII was set down confusedly 59.7. (k) Observed doubtfully: interruption by clouds. (l) So faint that tenths of seconds could only be guessed at. Wire IV was set down confusedly 7.3, and the counting was found to be 20^s slow. (m) Temp. 66°.5. (n) Wire VI doubtful from cloud, wire VII from disturbance. (o) Bad definition and clouds passing. (p) Taken respectively at - 3°, - 2°, - 1°, + 6°, + 7°, + 8° from the middle wire. The reduction to the middle wire, as deduced from the first and last = - 1^m. 50°.91. The interruption by cloud. (q) Unsteady and flaring. (r) The observations marked B, were taken by Mr John William Breen. The adopted rates are deduced from C's observations. (s) Faint from cloud. (t) Too short an interval after the preceding observation: wire I doubtful, and the counting 2^s slow.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"		s.	s.	s.	h.	m.	s.
Aug. 28	μ^1 Sagittarii.....	50,7	5,0	19,4	34,2	48,5	3,0	17,4	18. 4. 34,03	-1,8	-1,9	+1,1	34,11	19,02	1,33	18. 4. 53,25			C.
	γ Aquilæ.....	12,7	26,2	39,7	53,6	7,4	20,7	34,2	19. 38. 53,50				53,36	19,26		19. 39. 12,67			B.
	α Aquilæ.....	.....	.....	.....	13,7	27,5	40,9	54,4	19. 43. 13,68				13,55	19,31		19. 43. 32,86			B.
	β Aquilæ.....	1,8	15,4	28,8	42,7	56,1	9,6	23,0	19. 47. 42,48				42,37	19,37		19. 48. 1,69			B.
	Neptune.....	43,3	56,7	10,5	24,2	38,4	51,7	5,3	22. 39. 24,30				24,31			22. 39. 43,79			B.
Aug. 29	(a) \odot 2 L.....	21,0	34,4	47,8	2,0	15,7	29,3	42,8	10. 30. 1,85				1,71			10. 30. 21,76			C.
Aug. 30	(b) B.A.C. 7151.....	50,3	4,4	18,4	32,7	46,8	0,9	15,2	20. 52. 32,67			-1,0	32,60		1,49	20. 52. 54,63			B.
	H. C. 40197.....	13,9	27,8	41,8	55,8	9,8	23,6	37,7	20. 41. 55,77				55,69			20. 42. 17,72			B.
	Bessel xx. 1419..	24,9	38,8	52,6	6,5	20,5	34,1	47,2	20. 55. 6,37				6,28			20. 55. 28,33			B.
	Bessel xx. 1499..	.....	.....	.....	.....	47,8	1,7	15,6	20. 58. 33,87				33,79			20. 58. 55,84			B.
	(c) H. C. 41544.....	34,8	48,7	1,8	16,2	29,9	43,5	57,4	21. 15. 16,04				15,95			21. 15. 38,02			B.
	(d) β Aquarii.....	42,5	56,2	9,5	23,3	37,0	50,3	3,8	21. 23. 23,23				23,12	22,04		21. 23. 45,18			C.
	Bessel xxi. 818..	55,6	9,4	22,9	37,3	51,1	4,8	18,2	21. 33. 37,04				36,95			21. 33. 59,04			B.
	(c) B.A.C. 7620.....	37,1	50,6	4,0	18,1	.....	45,7	59,3	21. 45. 18,11				18,01			21. 45. 40,12			B.
	H. C. 42806.....	20,3	34,2	47,6	1,8	16,0	29,4	43,3	21. 50. 1,80				1,71			21. 50. 23,82			B.
	(c) α Aquarii.....	7,6	21,2	34,3	48,2	1,7	.....	28,5	21. 57. 48,06				47,92	22,24		21. 58. 10,03			B.
	(c) Bessel xxi. 192..	39,5	53,2	6,8	20,5	34,7	48,1	2,7	22. 9. 20,78				20,69			22. 9. 42,82			B.
	(c) Bessel xxi. 357..	53,1	6,7	20,2	34,3	48,0	1,3	15,7	22. 16. 34,19				34,09			22. 16. 56,22			B.
	Bessel xxi. 415..	.....	.....	58,3	12,3	26,0	39,7	53,6	22. 19. 12,18				12,09			22. 19. 34,22			B.
	Neptune.....	28,3	42,1	55,5	9,4	23,0	36,5	50,1	22. 39. 9,28				9,17			22. 39. 31,31			C.
	α Pegasi.....	19,4	33,2	47,0	1,1	15,0	28,7	42,6	22. 57. 1,00				0,78	22,18		22. 57. 22,93			C.
	α Andromedæ...	36,4	51,6	6,8	22,3	37,6	52,9	8,1	0. 0. 22,24				22,04	22,20		0. 0. 44,26			C.
Sept. 2	(f) \odot 2 L.....	47,4	1,2	14,5	28,4	42,0	55,4	8,9	10. 44. 28,26				28,04		1,63	10. 44. 54,34			C.
	Polaris SP.....	.....	.....	55,5	36,5	.....	59,0	38,2	13. 5. 39,52				46,70			13. 5. 59,52			C.
	(g) Polaris SP. M....	24,0	8,0	53,7	36,5	21,0	5,5	50,0	13. 5. 39,15				46,33			13. 5. 59,15			C.
	δ Ophiuchi.....	26,6	40,0	53,4	7,2	20,7	34,0	47,4	16. 6. 7,05				6,92	26,62		16. 6. 27,05			C.
	Antares.....	6,6	21,5	36,4	51,4	6,4	21,3	36,4	16. 19. 51,43				51,37	26,72		16. 19. 51,43			C.
Sept. 3	(h) α Serpentis.....	.....	.....	.....	28,3	42,4	55,6	9,2	15. 36. 28,52			-1,1	28,34	28,35	1,60	15. 36. 56,59			C.
	α Herculis.....	42,6	56,7	10,3	24,5	38,5	51,8	5,7	17. 7. 24,30				24,12	28,42		17. 7. 52,41			B.
	(i) θ Ophiuchi.....	.....	.....	.....	24,8	39,8	54,6	.....	17. 12. 24,84				24,79			17. 12. 53,09			B.
	α Ophiuchi.....	52,9	6,7	20,6	34,3	48,2	1,8	15,7	17. 27. 34,31				34,12	28,42		17. 28. 2,43			B.
	γ 1 L.....	40,8	55,7	10,3	25,7	40,6	55,1	10,2	17. 37. 25,49				25,44			17. 37. 53,76			B.
	μ^1 Sagittarii.....	41,5	55,6	10,3	.....	39,4	53,6	8,2	18. 4. 24,78				24,73	28,31		18. 4. 53,08			B.
	λ Sagittarii.....	35,3	50,3	5,1	20,0	35,0	49,9	4,8	18. 18. 29,05				20,00			18. 18. 48,37			B.
	σ Sagittarii.....	50,1	5,0	19,9	35,1	50,2	4,9	19,9	18. 45. 35,01				34,96			18. 46. 3,36			B.
	(c)(k) Hebe.....	38,7	52,7	6,6	21,2	35,3	48,9	3,6	18. 50. 21,00				20,95			18. 50. 49,36			B.
	H. C. 35773.....	5,3	19,5	33,5	47,5	2,0	16,4	30,6	18. 59. 47,83				47,78			19. 0. 16,20			B.
	H. C. 36005.....	48,0	1,8	15,5	29,4	42,9	56,8	10,7	19. 4. 29,30				29,25			19. 4. 57,67			B.
	(c) H. C. 36501.....	3,9	18,1	.....	46,3	.....	14,3	28,6	19. 14. 46,23				46,17			19. 15. 14,60			B.
	B.A.C. 6666.....	27,4	42,8	57,6	12,7	28,0	43,4	57,9	19. 20. 12,83				12,79			19. 20. 41,23			B.
	H. C. 37238.....	23,1	38,3	53,5	8,8	24,0	38,9	54,3	19. 81. 8,70				8,65			19. 31. 37,10			B.
	H. C. 37481.....	.....	11,6	26,6	42,0	57,4	12,2	27,1	19. 36. 42,02				41,97			19. 37. 10,43			B.
	β Aquilæ.....	.....	.....	19,7	33,7	47,3	0,6	13,9	19. 47. 33,51				33,34	28,35		19. 48. 1,81			B.
	B.A.C. 6878.....	44,3	58,7	13,3	28,2	42,7	57,3	11,7	19. 54. 28,03				27,98			19. 54. 56,46			B.
	B.A.C. 6914.....	41,6	55,7	10,3	24,6	39,3	53,6	7,6	20. 0. 24,67				24,62			20. 0. 53,10			B.
	H. C. 38765.....	35,6	49,6	3,4	17,8	32,0	45,9	59,8	20. 6. 17,73				17,67			20. 6. 46,16			B.
	α^2 Capricorni....	39,4	53,0	6,8	20,8	34,9	48,6	2,6	20. 9. 20,87				20,80	28,49		20. 9. 49,29			B.
	Bessel xx. 419....	3,6	17,2	31,1	45,2	59,4	12,9	26,7	20. 16. 45,16				45,10			20. 17. 13,61			B.
	B.A.C. 7115.....	13,6	27,8	41,8	55,7	10,3	23,9	38,7	20. 28. 55,97				55,92			20. 29. 24,44			B.
	Bessel xx. 1541..	.....	26,7	40,6	54,7	8,8	22,8	36,3	20. 59. 54,70				54,63			21. 0. 23,18			B.
	Bessel xxi. 252..	29,6	43,1	.....	.....	24,8	38,8	52,8	21. 11. 11,02				10,96			21. 11. 39,52			B.
	β Aquarii.....	36,2	49,5	3,0	16,8	30,3	43,7	57,5	21. 23. 16,72				16,63	28,52		21. 23. 45,20			B.
	Bessel xxi. 717..	5,3	19,3	32,7	46,8	0,8	14,3	28,2	21. 29. 46,77				46,70			21. 30. 15,28			B.
	(l) Bessel xxi. 830..	25,8	39,7	52,9	6,7	20,6	33,8	47,3	21. 34. 6,69				6,60			21. 34. 35,19			B.
	Bessel xxi. 1173..	54,1	7,7	21,6	35,3	48,8	2,6	16,3	21. 49. 35,20				35,12			21. 50. 3,73			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, $-40^s,337$, $-26^s,913$, $-13^s,618$, $+0^s,060$, $+13^s,573$, $+26^s,892$, $+40^s,344$.

(a) Not good: wire V was set down 17.7. Grouped with C's observations of Aug. 28. (b) The correction $+0^s,02$ is applied to B's observations for difference of personal equation of C and B. See Introduction. (c) Very faint. (d) Flaring. Temp. $53^s,1$. (e) Cloudy. (f) The limb unusually ragged: could not be observed accurately. (g) Wire VI doubtful from cloud. (h) The observations of C and B on this day are reduced independently, the rate being inferred exclusively from C's observations. C's mean loss of clock at 0^h exceeds B's by $0^s,06$. (i) Very faint from day-light. (k) Probably the Planet. (l) Cloudy after this.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"				h. m. s.	h. m. s.	h. m. s.	
Sept. 3	(a)(b) α Aquarii.....	1,3	14,7	28,1	41,6	55,4	8,6	22,0	21. 57. 41,67	-1,8	-1,1	-1,0	41,56	28,61	1,60	21. 58. 10,23			C.
	(a) Neptune.....	57,1	10,7	24,3	38,1	51,6	5,3	19,0	22. 38. 38,02				37,93			22. 39. 6,65			C.
	α Pegasi.....	12,9	26,5	40,4	54,6	8,4	22,3	36,1	22. 56. 54,46				54,28	28,71		22. 57. 23,02			C.
Sept. 4	(c) H. C. 40687.....	7,2	20,8	34,7	48,8	2,8	16,9	30,9	20. 53. 48,88				48,81			20. 54. 18,95			B.
Sept. 5	(d) \odot 1 L.....	25,6	39,4	53,1	6,7	20,3	33,7	....	10. 53. 6,59				6,41		1,52	10. 53. 37,47			C.
	\odot 2 L.....	....	48,0	1,3	15,1	28,7	42,2	55,6	10. 55. 15,03				14,85			10. 55. 45,91			C.
	μ^1 Sagittarii.....	38,4	52,6	7,1	21,5	36,1	50,4	4,7	18. 4. 21,54				21,49	31,52					C.
Sept. 6	(e)(f) \odot 1 L.....	0,6	14,5	....	41,8	55,3	....	....	10. 56. 41,58				41,40			10. 57. 13,98			T.
Sept. 8	(e) δ 1 L.....	....	42,9	56,9	....	25,6	40,0	54,2	22. 3. 11,33			+1,6	11,44		1,65	22. 3. 47,61			T.
	(e) τ^2 Aquarii.....	26,1	40,3	54,1	8,2	22,2	36,2	50,1	22. 41. 8,18				8,28			22. 41. 44,49			T.
	(e) δ Aquarii.....	28,4	....	56,2	....	24,8	38,5	52,4	22. 46. 10,45				10,56			22. 46. 46,77			T.
	α Pegasi.....	5,3	19,0	32,7	47,1	1,2	14,6	28,4	22. 56. 46,90				46,83	36,19					T.
	(g) Regulus.....	7,3	21,3	35,0	49,1	3,0	16,4	30,4	9. 59. 48,93				48,86	37,04					T.
Sept. 9	(h)(i) α Ophiuchi.....	43,4	57,2	10,9	25,2	38,8	52,4	6,6	17. 27. 24,93				24,86	37,57	1,69	17. 28. 2,39			T.
	(h)(k) μ^1 Sagittarii.....	....	46,4	0,6	15,3	29,7	44,2	....	18. 4. 15,24				15,37	37,57		18. 4. 52,94			T.
	H. C. 36288.....	29,6	44,0	58,1	13,2	28,0	42,2	56,9	19. 10. 13,14				13,27			19. 10. 50,92			T.
	H. C. 36501.....	....	8,8	22,7	37,1	51,3	5,2	....	19. 14. 37,02				37,13			19. 15. 14,78			T.
	H. C. 36618.....	36,4	51,1	5,7	20,6	35,4	50,1	4,8	19. 17. 20,58				20,71			19. 17. 58,37			T.
	H. C. 36798.....	....	48,3	3,2	18,4	33,3	47,9	....	19. 21. 18,22				18,35			19. 21. 56,01			T.
	h^1 Sagittarii.....	38,5	53,2	7,9	23,1	38,1	52,8	7,5	19. 26. 23,01				23,14			19. 27. 0,81			T.
	(l) H. C. 37238.....	13,6	28,4	43,9	59,3	14,6	29,7	44,9	19. 30. 59,20				59,35			19. 31. 37,02			T.
	H. C. 37399.....	47,8	2,8	17,8	33,4	48,7	4,0	19,1	19. 34. 33,37				33,52			19. 35. 11,20			T.
	γ Aquilæ.....	54,0	7,5	21,1	35,1	48,8	2,3	16,1	19. 38. 34,99				34,92	37,58		19. 39. 12,60			T.
	α Aquilæ.....	14,2	27,7	41,3	55,1	8,8	22,2	35,8	19. 42. 55,01				54,95	37,79		19. 43. 32,64			T.
	β Aquilæ.....	43,4	57,0	10,3	24,1	37,7	51,1	4,7	19. 47. 24,04				24,00	37,62		19. 48. 1,69			T.
	α^2 Capricorni.....	30,2	44,0	57,5	11,5	25,4	39,1	53,1	20. 9. 11,54				11,64	37,59		20. 9. 49,36			T.
	β Aquarii.....	26,6	40,3	53,6	7,3	20,8	34,3	47,9	21. 23. 7,26				7,32	37,81		21. 23. 45,12			T.
	Neptune.....	11,0	24,3	38,1	51,9	5,7	19,1	32,7	22. 37. 51,83				51,90			22. 38. 29,80			T.
	(m) τ^2 Aquarii.....	24,7	38,6	52,5	6,4	20,4	34,2	48,2	22. 41. 6,43				6,54			22. 41. 44,44			T.
	δ Aquarii.....	26,7	41,0	54,8	8,7	23,0	37,0	50,9	22. 46. 8,88				8,99			22. 46. 46,89			T.
	η 1 L.....	18,9	33,1	46,7	1,1	15,3	29,4	43,4	22. 51. 1,12				1,20			22. 51. 59,11			T.
	(n) α Pegasi.....	3,3	17,2	31,0	45,2	59,1	12,9	26,5	22. 56. 45,03				44,96	38,06		22. 57. 22,88			T.
Sept. 10	(o) \odot 1 L.....	....	33,1	46,4	0,3	13,8	27,1	40,5	11. 11. 0,10				0,06		1,73	11. 11. 38,81			T.
	\odot 2 L.....	27,4	41,0	54,4	8,2	21,7	35,3	48,8	11. 13. 8,12				8,08			11. 13. 46,84			T.
	(p) Polaris SP.....	25,0	7,5	42,5	24,0	....	....	....	13. 5. 25,58				35,40			1. 6. 14,29			T.
	ϵ Bootis.....	4,3	19,4	34,6	50,0	5,3	20,2	35,4	14. 37. 49,88				49,82	39,07		14. 38. 28,82			T.
	β Lyræ.....	8,9	25,0	40,7	57,0	13,3	29,2	45,3	18. 43. 57,06				56,97	39,31		18. 44. 36,27			T.
	β Aquilæ.....	41,7	55,3	8,8	22,4	36,0	49,4	3,0	19. 47. 22,37				22,33	39,27		19. 48. 1,70			T.
	α Aquarii.....	50,3	3,7	17,2	30,7	44,2	57,5	11,1	21. 57. 30,67				30,70	39,47		21. 58. 10,23			T.
	Neptune.....	3,3	17,0	30,5	44,3	58,0	11,4	25,1	22. 37. 14,23				44,30			22. 38. 23,88			T.
	α Pegasi.....	1,4	15,7	29,3	43,7	57,7	11,2	25,0	22. 56. 43,43				43,36	39,66		22. 57. 22,97			T.
	ψ^3 Aquarii.....	54,2	7,9	21,5	35,4	49,1	2,8	16,4	23. 10. 35,33				35,40			23. 11. 15,02			T.
	η 2 L.....	47,6	1,1	14,9	29,0	42,9	56,7	10,4	23. 39. 28,95				29,02			23. 40. 8,67			T.
Sept. 11	(q) \odot 1 L.....	53,2	6,9	20,0	33,9	47,2	1,1	14,5	11. 14. 33,83				33,79		1,78	11. 15. 14,35			T.
	\odot 2 L.....	1,7	15,0	28,2	42,0	55,8	....	22,7	11. 16. 42,08				42,04			11. 17. 22,61			T.
	(r) Polaris SP.....	20,5	3,0	40,5	18,0	7,0	39,0	....	13. 5. 21,18				31,00			1. 6. 11,70			T.
	(s) Spica.....	....	....	....	40,7	54,0	7,6	21,3	13. 16. 40,34				40,41	40,70		13. 17. 21,12			T.
	β Lyræ.....	7,0	22,9	38,9	55,3	11,4	27,3	43,4	18. 43. 55,17				55,08	41,18		18. 44. 36,20			T.
	H. C. 35311.....	26,1	41,1	55,7	11,0	26,1	41,0	56,1	18. 49. 11,01				11,15			18. 49. 52,28			T.
	H. C. 35552.....	7,3	21,2	35,1	49,4	3,8	17,8	31,9	18. 54. 49,50				49,62			18. 55. 30,75			T.
	ζ Aquilæ.....	12,8	26,6	40,3	54,5	8,3	22,1	36,0	18. 57. 54,37				54,31	41,13		18. 58. 35,45			T.
	(t) H. C. 35931.....	9,0	23,7	38,9	54,1	8,8	23,7	38,8	19. 2. 53,85				53,69			19. 3. 35,13			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40",337, -26",913, -13",618, +0",060, +13",573, +26",892, +40",344.

(a) Observed very unsatisfactorily. (b) Wire III was set down confusedly 27,9 for 28,1. (c) Grouped with *B*'s observations of Sept. 3. (d) Observed with difficulty, clouds scarcely allowing a dark glass to be used. Wire I of 1 L. was taken hurriedly, and 1^a was lost after wire II, which has been supplied. Temp. 58°.2. (e) Clouds. (f) No allowance made for difference of personal equation of C and T. (g) Grouped with the observations of the preceding night. (h) Disturbance by noise. (i) The counting 1^a fast: all the wires except I have been diminished 1^a. (k) All the wires have been diminished 2^a. (l) The counting for all the wires after II was 10^a short. (m) Complete disturbance by noise. (n) Bad definition. (o) Cloud at wire I: mostly without the dark glass. (p) Great motion: interruption by cloud after wire IV. (q) Extremely unsteady. (r) So unsteady as to make some wires quite doubtful. (s) Very unsteady: not seen earlier. (t) Very faint.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
Sept. 11	γ Aquilæ.....	50,4	4,1	17,6	31,6	45,3	58,8	12,4	19.38.31,45	-1,8	-1,1	+1,6	31,38	41,08	1,78	19.39.12,57	T.		
	α Aquilæ.....	10,7	24,4	38,0	51,7	5,3	18,8	32,3	19.42.51,60				51,54	41,17		19.43.32,73	T.		
	β Aquilæ.....	39,9	53,5	6,7	20,6	34,1	47,6	1,0	19.47.20,48				20,44	41,15		19.48.1,64	T.		
	α^2 Capricorni....	26,6	40,3	54,0	8,1	22,0	35,6	49,4	20.9.8,00				8,10	41,11		20.9.49,32	T.		
	α Aquarii.....	48,7	2,1	15,3	28,9	42,5	55,9	9,3	21.57.28,96				28,99	41,17		21.58.10,35	T.		
	Neptune.....	55,3	9,1	22,6	36,4	50,1	3,6	17,1	22.37.36,32				36,39			22.38.17,80	T.		
	27 Piscium.....	56,7	10,1	23,6	37,3	50,6	....	....	23.50.23,66				23,72			23.51.5,21	T.
	33 Piscium.....	22,9	36,4	49,8	3,6	17,1	30,5	44,1	23.57.3,48				3,54			23.57.45,05	T.		
	α Andromedæ....	17,1	32,3	47,3	3,0	18,2	33,6	48,8	0.0.2,90				2,84	41,56		0.0.44,35	T.		
	(a) Iris.....	11,0	24,7	38,4	52,6	6,3	19,8	33,7	0.2.52,35				52,28			0.3.33,79	T.		
	(b) * N.P.D. 82°. 1'.	53,2	6,3	20,1	34,0	47,6	1,2	14,6	0.21.33,86				33,80			0.22.15,34	T.		
) 2 L.....	21,9	35,7	49,5	3,4	17,3	30,8	44,7	0.25.3,33				3,38			0.25.44,92	T.			
Sept. 12	(c) \odot 1 L.....	27,2	40,5	54,1	8,0	21,2	34,6	48,3	11.18.7,70			-1,0	7,69		1,76	11.18.50,01	T.		
	\odot 2 L.....	35,1	48,5	2,4	15,9	29,7	42,9	56,7	11.20.15,89				15,86			11.20.58,18	T.		
	Polaris SP.....	....	4,0	39,0	18,0	9,0	43,0	....	13.5.22,55				32,18			1.6.14,63	T.
	μ^1 Sagittarii....	26,8	41,2	55,4	10,1	24,6	38,9	53,3	18.4.10,04				10,17	42,72		18.4.52,98	T.		
	β Lyrae.....	5,3	21,3	37,1	53,5	9,6	25,7	41,7	18.43.53,46				53,38	42,86		18.44.36,25	T.		
	ζ Aquilæ.....	11,2	24,9	38,7	52,7	6,4	20,1	34,1	18.57.52,58				52,52	42,90		18.58.35,40	T.		
	ϵ^2 Sagittarii....	33,7	50,8	4,4	18,7	32,9	46,7	0,9	19.33.18,73				18,84			19.34.1,76	T.		
	β Aquarii.....	21,4	35,0	48,2	2,1	15,6	29,0	42,5	21.23.1,97				2,04	43,08		21.23.45,10	T.		
	Bessel xxi. 1036.	19,3	33,0	46,6	0,2	13,9	27,5	41,1	21.43.0,22				0,29			21.43.43,37	T.		
	(d) Bessel xxi. 1106.	37,3	51,1	4,7	18,8	32,7	46,3	0,1	21.46.18,72				18,82			21.47.1,91	T.		
	Bessel xxi. 1206.	33,3	7,2	20,9	35,1	49,1	2,5	16,6	21.50.34,96				35,06			21.51.18,15	T.		
	29 Aquarii.....	53,9	8,0	21,8	36,4	50,4	4,5	18,6	21.53.36,23				36,36			21.54.19,45	T.		
	α Aquarii.....	46,4	0,1	13,5	27,1	40,6	53,9	7,4	21.57.27,00				27,04	43,12		21.58.10,14	T.		
	Neptune.....	47,6	1,2	14,7	28,7	42,2	55,7	9,3	22.37.28,49				28,56			22.38.11,71	T.		
	H. C. 44661....	7,8	21,6	35,1	49,2	3,1	17,0	31,0	22.41.49,26				49,37			22.42.32,52	T.		
	Bessel xxi. 981.	45,7	59,1	12,7	26,9	40,3	54,0	7,7	22.46.26,63				26,70			22.47.9,86	T.		
	α Pegasi.....	58,2	12,1	25,8	39,9	54,0	7,7	21,5	22.56.39,89				39,83	43,20		22.57.23,00	T.		
	Iris.....	26,2	40,2	53,6	7,7	21,8	....	....	0.2.7,66				7,60			0.2.50,85	T.
	(e) * N.P.D. 82°. 1'.	51,3	5,2	18,6	32,2	46,1	59,3	13,0	0.21.32,24				32,19			0.22.15,47	T.		
	20 Ceti.....	2,2	16,0	29,2	42,8	56,5	9,6	23,2	0.44.42,78				42,82			0.45.26,12	T.		
	ϵ Piscium.....	20,6	34,2	47,3	1,1	14,7	28,1	41,6	1.0.1,08				1,04			1.0.44,36	T.		
	(f) Polaris.....	41,0	23,5	57,5	41,5	29,0	....	....	1.5.42,07				33,29			1.6.16,62	T.
	) 2 L.....	47,6	0,9	14,1	28,1	41,9	55,6	9,3	1.10.28,13				28,14			1.11.11,48	T.	
	Regulus.....	0,7	14,5	28,1	42,1	56,1	9,7	23,4	9.59.42,08				42,01	43,95	1,73	10.0.25,99	T.		
Sept. 13	\odot 1 L.....	1,2	14,6	27,3	41,2	55,2	8,3	22,0	11.21.41,40				41,37			11.22.25,45	T.		
	\odot 2 L.....	9,1	22,4	35,9	49,3	3,2	16,5	30,0	11.23.49,49				49,46			11.24.33,54	T.		
	Polaris SP.....	24,0	....	43,5	20,5	11,0	44,0	....	13.5.24,79				34,42			1.6.18,62	T.
	(g) Spica.....	55,9	9,5	23,0	37,0	50,7	4,2	18,0	13.16.36,90				36,97	44,13		13.17.21,19	T.		
	Arcturus.....	24,7	39,1	53,2	7,6	22,3	36,3	50,4	14.8.7,66				7,63	44,39		14.8.51,91	T.		
	(h) 23 Sagittarii....	59,5	14,0	28,4	43,4	58,2	12,6	27,2	18.20.43,33				43,46			18.21.27,89	C.		
	B.A.C. 6343....	0,2	15,0	29,4	44,2	59,2	13,5	28,3	18.28.44,26				44,40			18.29.28,84	C.		
	H. C. 34749....	31,6	45,9	59,9	14,2	28,4	42,3	56,5	18.36.14,11				14,24			18.36.58,84	T.		
	29 Sagittarii....	23,7	38,1	52,1	6,7	21,2	35,3	50,0	18.40.6,73				6,86			18.40.51,47	T.		
	β Lyrae.....	3,4	19,3	35,4	51,7	7,9	24,0	39,8	18.43.51,64				51,56	44,66		18.44.36,17	T.		
	H. C. 35311....	22,1	37,5	52,3	7,4	22,7	37,4	52,5	18.49.7,42				7,56			18.49.52,18	T.		
	B.A.C. 6485....	12,1	26,7	41,2	56,1	10,7	25,1	39,6	18.51.55,93				56,06			18.52.40,68	T.		
	H. C. 35552....	3,4	17,6	31,5	46,1	0,2	14,3	28,4	18.54.45,93				46,06			18.55.30,68	T.		
	ζ Aquilæ.....	9,4	23,2	36,7	51,0	4,7	18,4	32,3	18.57.50,81				50,75	44,65		18.58.35,38	T.		
	d Sagittarii....	29,3	48,7	57,5	12,1	26,4	40,6	55,0	19.8.12,08				12,21			19.8.56,85	T.		
	H. C. 36501....	47,5	1,4	15,6	30,0	44,1	58,2	12,1	19.14.29,84				29,96			19.15.14,61	T.		
	H. C. 36657....	21,5	36,0	49,9	4,7	19,1	33,1	47,7	19.18.4,57				4,70			19.18.49,35	T.		
	H. C. 36814....	43,0	57,8	12,2	27,4	42,1	56,9	11,7	19.21.27,30				27,44			19.22.12,10	T.		
	(i) H. C. 36961....	0,8	14,8	28,3	43,0	57,1	11,0	25,0	19.24.42,86				42,97			19.25.27,63	T.		
	(k) 53 Sagittarii....	25,3	40,0	54,3	9,3	24,2	38,8	53,6	19.30.9,36				9,50			19.30.54,17	T.		
	ϵ^2 Sagittarii....	35,0	48,8	2,8	17,0	31,1	45,0	59,0	19.33.16,96				17,07			19.34.1,74	T.		

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°.337, -26°.913, -13°.618, +0°.060, +13°.573, +26°.892, +40°.344.

(a) A fainter object preceded about 35°. (b) Observed for Hygeia. (c) 'Unsatisfactory observation.' (d) Counting 20° fast for the last four wires.
 (e) This observation proved that the object observed Sept. 11 was not the Planet. The Ephemeris was in fault. (f) Extremely unsteady at some wires.
 (g) Very faint and tremulous. (h) The observations of C and T on this day are reduced independently: T's mean loss of clock at 0^h is greater than C's by 0°.15. The rate is inferred from T's observations. (i) 'The first and most northern of three.' (k) 'One equal south-following,' viz. B.A.C. 6727.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.											
Sept. 13	H. C. 37491	55,9	10,8	25,3	40,6	55,6	10,1	25,2	19.36.40,50	-1,8	-1,0	+1,6	40,64		1,73	19.37.25,32			T.
	H. C. 37642	32,4	47,1	1,5	16,6	31,3	46,0	0,8	19.40.16,53				16,67			19.41.1,35			T.
	α Aquilæ.....	7,2	20,9	34,3	48,2	1,8	15,2	28,7	19.42.48,05				47,99	44,69		19.43.32,67			T.
	β Aquilæ.....	36,4	50,0	3,3	17,0	30,5	44,0	57,4	19.47.16,95				16,91	44,66		19.48.1,59			T.
	α^2 Capricorni....	23,2	36,7	50,4	4,4	18,3	32,1	45,9	20.9.4,43				4,53	44,66		20.9.49,24			T.
	β Aquarii.....	19,6	33,3	46,6	0,4	14,0	27,3	41,0	21.23.0,31				0,38	44,73					C.
	H. C. 42108.....	44,1	57,7	11,4	25,5	39,1	52,7	6,3	21.29.25,26				25,35			21.30.10,01			C.
	Bessel xxi. 954..	5,8	19,5	33,1	46,9	0,7	14,0	28,1	21.38.46,87				46,94			21.39.31,61			C.
	Bessel xxi. 1146.	27,2	41,1	54,7	9,0	22,8	36,6	50,4	21.48.8,83				8,93			21.48.53,61			C.
	Bessel xxi. 1256.	23,1	36,4	50,0	3,6	17,3	30,5	44,1	21.53.3,57				3,64			21.53.48,33			C.
	α Aquarii.....	45,1	58,6	12,0	25,4	39,1	52,5	5,8	21.57.25,50				25,54	44,62					C.
	Neptune.....	39,9	53,6	7,1	21,0	34,6	48,1	1,7	22.37.20,85				20,92			22.38.5,81			T.
	Iris.....	40,9	54,6	8,3	22,2	36,1	49,7	3,3	0.1.22,15				22,08			0.2.7,07			T.
	(a) Hygeia.....	16,4	30,2	43,7	57,3	10,9	24,3	38,2	0.19.57,29				57,24			0.20.42,25			T.
Sept. 15	23 Sagittarii....	55,9	10,4	25,0	39,8	54,5	9,0	23,8	18.20.39,78				39,91		1,69	18.21.27,85			T.
	(b) B.A.C. 6343....	56,6	11,3	25,8	40,9	55,3	10,0	24,8	18.28.40,67				40,81			18.29.28,76			T.
	β Lyrae.....	0,0	16,0	32,0	48,2	4,3	20,3	36,4	18.43.48,18				48,10	48,07		18.44.36,07			T.
	β Aquilæ.....	33,1	46,5	59,8	13,4	27,1	40,6	54,1	19.47.13,51				13,47	48,07		19.48.1,51			T.
	β Aquarii.....	16,2	29,7	43,2	57,0	10,5	24,1	37,5	21.22.56,89				56,95	48,14		21.23.45,12			T.
	α Aquarii.....	41,7	55,1	8,3	22,1	35,7	49,1	2,3	21.57.22,04				22,08	48,08		21.58.10,27			T.
	Neptune.....	24,7	38,2	51,7	5,6	19,3	32,9	46,7	22.37.5,59				5,66			22.37.53,91			T.
	α Pegasi.....	....	6,8	20,7	34,9	49,1	2,6	....	22.56.34,82				34,76	48,27		22.57.23,03			T.
	Iris.....	6,7	20,3	33,8	48,0	1,9	15,4	29,0	23.59.47,87				47,80			0.0.36,14			T.
Sept. 17	(c) \odot 1 L.....	15,6	29,0	42,2	56,0	9,3	22,9	36,4	11.35.55,91				55,91		1,62	11.36.46,78			T.
	\odot 2 L.....	23,4	36,8	50,4	4,0	17,6	30,8	44,5	11.38.3,93				3,93			11.38.54,81			T.
	ϵ Bootis.....	....	....	22,3	37,8	53,2	8,1	....	14.37.37,76				37,70	51,09		14.38.28,78			T.
	(d) 23 Sagittarii....	....	7,1	21,7	36,3	51,2	5,8	....	18.20.35,42				36,55			18.21.27,88			T.
	B.A.C. 6343.....	....	7,8	22,3	37,3	52,2	6,7	....	18.28.37,26				37,40			18.29.28,74			T.
	β Lyrae.....	56,7	12,7	28,5	45,0	1,1	16,9	33,1	18.43.44,86				44,78	51,34		18.44.36,13			T.
	γ Aquilæ.....	40,2	53,7	7,1	21,1	34,6	48,2	1,9	19.38.20,97				20,90	51,48		19.39.12,32			T.
	(e) α Aquilæ.....	0,8	14,3	27,6	41,6	55,2	8,5	22,0	19.42.41,43				41,37	51,25		19.43.32,79			T.
	β Aquilæ.....	29,3	43,0	56,2	10,3	23,7	37,1	50,5	19.47.10,01				9,97	51,54		19.48.1,40			T.
	(f) β Aquarii.....	12,7	26,6	39,7	53,6	7,1	20,7	34,1	21.22.53,50				53,57	51,52		21.23.45,10			T.
	Sept. 18	(g) \odot 1 L.....	49,8	3,2	16,6	30,1	43,3	57,0	10,4	11.39.30,06				30,06			11.40.22,55			T.
\odot 2 L.....		57,3	11,1	24,3	38,1	51,6	5,0	18,2	11.41.37,95				37,95			11.42.30,45			T.
Sept. 19	(h) α Aquilæ.....	57,3	11,1	24,3	38,3	52,0	5,4	19,1	19.42.38,22				38,16	54,43	1,68	19.43.32,68			T.
	(e) α Aquarii.....	35,2	48,3	1,8	15,4	28,9	42,3	55,9	21.57.15,40				15,44	54,70		21.58.10,12			T.
	Neptune.....	54,8	8,5	21,9	35,7	49,4	3,0	16,6	22.36.35,70				35,77			22.37.30,49			T.
	(i) α Pegasi.....	46,6	0,7	14,2	28,6	42,4	56,2	10,1	22.56.28,40				28,34	54,70		22.57.23,09			T.
	Iris.....	49,8	3,6	17,1	31,1	45,0	58,4	12,1	23.56.31,01				30,95			23.57.25,77			T.
	(k) α Andromedæ...	3,4	19,1	34,2	49,8	5,0	20,2	35,4	23.59.49,59				49,53	54,94		0.0.44,35			T.
Sept. 20	(l) \odot 1 L.....	57,2	10,7	24,0	37,7	51,2	....	....	11.46.37,64			-1,3	37,66		1,73	11.47.33,34			T.
	\odot 2 L.....	5,1	18,4	32,0	....	59,3	13,0	26,1	11.48.45,66				45,68			11.49.41,36			T.
	B.A.C. 6343....	48,3	3,1	17,6	32,6	47,2	1,8	16,2	18.28.32,40				32,54			18.29.28,70			T.
	β Lyrae.....	51,8	7,7	23,2	40,1	56,2	12,2	28,3	18.43.39,92				39,82	56,23		18.44.36,00			T.
	α Aquilæ.....	55,6	9,2	22,8	36,6	50,3	3,6	17,2	19.42.36,47				36,40	56,18		19.43.32,65			T.
	β Aquilæ.....	24,9	38,2	51,8	5,4	19,0	32,5	45,8	19.47.5,37				5,32	56,15		19.48.1,58			T.
	β Aquarii.....	8,2	21,6	35,0	48,8	2,2	15,7	29,1	21.22.48,66				48,71	56,35		21.23.45,08			T.
	Neptune.....	47,2	0,9	14,3	28,1	41,7	55,3	9,0	22.36.28,07				28,13			22.37.24,59			T.
	(m) α Pegasi.....	44,7	58,8	12,4	26,7	40,4	54,2	8,2	22.56.26,49				26,41	56,63		22.57.22,89			T.
Sept. 22	(n) \odot 1 L.....	....	....	....	45,4	59,1	12,2	25,9	11.53.45,38				45,39		1,71	11.54.44,69			B.
	\odot 2 L.....	12,8	26,2	39,7	53,3	7,0	20,3	34,0	11.55.53,33				53,34			11.56.52,64			B.
	Arcturus.....	....	23,8	38,0	52,7	6,9	21,1	....	14.7.52,50				52,45	59,49		14.8.51,91			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',337, -26',913, -13',618, +0',060, +13',573, +26',892, +40',344.

(a) Faint. (b) Disturbance by noise in the court. (c) Extremely unsteady. (d) The counting was 2^s fast: correction applied. (e) Bad definition. (f) Diffused and unsteady. (g) Great motion. The noted times for 1 L. were 29^s greater. (h) Very faint from cloud. (i) Faint and unsteady. (k) Greatly diffused. The last four wires have been diminished 10^s. (l) Unsteadiness and interruption by clouds: all the wires except VII of 2 L. without the dark glass. (m) Great motion. (n) Cloudy: partly without the dark glass. In calculating the rate for this day B is assumed to observe earlier than T by 0,2.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.				h.	m.	s.	
		s.	s.	s.	s.	s.	s.	s.		"	"	"				"	"	"	
Sept. 22	β Lyrae.....	48,1	4,0	19,8	36,2	52,2	8,2	24,3	18.43.36,11	-1,8	-1,3	+1,6	36,01	60,00	1,71	18.44.35,80			B.
	α Aquarii.....	30,1	43,3	56,5	10,3	23,9	37,2	50,6	21.57.10,27				10,29	59,83		21.58.10,30			B.
	Neptune.....	32,2	46,1	59,4	13,2	27,0	40,3	54,2	22.36.13,20				13,26			22.37.13,32			B.
	α Pegasi.....	....	55,1	9,1	23,3	37,2	51,0	....	22.56.23,14				23,06	59,97		22.57.23,15			B.
	Iris.....	....	30,1	43,8	57,4	11,4	25,1	....	23.53.57,56				57,48			23.54.57,63			B.
	α Andromedæ...	58,3	13,4	28,8	44,3	59,4	14,7	30,3	23.59.44,17				44,09	60,39		0.0.44,25			B.
	(a) α Arietis.....	5,8	20,2	54,7	49,4	4,1	18,6	33,1	1.57.49,42				49,37	60,16		1.58.49,67			B.
Sept. 23	\odot 1 L.....	33,7	52,2	5,4	19,1	32,6	45,8	59,7	11.57.19,07				19,08			11.58.20,09			B.
	\odot 2 L.....	46,6	0,2	13,5	27,3	41,2	54,3	7,4	11.59.27,22				27,23			12.0.28,24			B.
Sept. 24	(b) γ Sagittarii.....	....	0,2	14,0	28,2	42,3	56,2	....	19.48.28,18				28,28		1,66	19.49.31,61			B.
	B.A.C. 6914.....	6,1	20,3	34,3	49,1	4,0	18,1	32,3	19.59.49,18				49,30			20.0.52,65			B.
	(c) H. C. 38932.....	28,0	42,1	56,0	10,6	24,4	38,7	52,5	20.9.10,32				10,44			20.10.13,79			B.
	H. C. 39095.....	13,3	27,2	41,2	55,4	9,6	23,2	37,2	20.12.55,30				55,41			20.13.58,76			B.
	(d) H. C. 39259.....	25,7	40,2	54,4	8,8	23,3	37,5	52,4	20.17.8,90				9,02			20.18.12,39			B.
	(e) B.A.C. 7070.....	47,1	1,2	16,0	30,7	45,3	59,7	14,2	20.22.30,60				30,73			20.23.34,10			B.
	H. C. 39603.....	43,1	57,0	11,2	25,2	39,3	53,3	7,1	20.25.25,17				25,28			20.26.28,65			B.
	H. C. 39981.....	39,0	53,1	7,3	21,8	36,2	50,2	5,0	20.34.21,80				21,92			20.35.25,30			B.
	H. C. 40073.....	21,8	36,0	50,2	4,7	19,1	33,3	47,4	20.37.46,64				4,76			20.38.8,14			B.
	Bessel xx. 1051..	6,4	20,8	....	48,4	2,8	16,4	30,3	20.39.48,50				48,60			20.40.51,99			B.
	H. C. 40311.....	....	....	46,4	1,0	15,6	29,8	48,9	20.44.1,06				1,18			20.45.4,57			B.
	H. C. 40488.....	53,8	8,0	22,3	37,0	51,3	....	20,8	20.48.37,03				37,15			20.49.40,55			B.
	H. C. 40684.....	32,6	47,1	1,1	15,3	30,2	44,1	58,2	20.53.15,52				15,64			20.54.19,04			B.
	Bessel xx. 1486..	29,1	43,1	56,4	10,6	24,5	38,2	52,1	20.57.10,57				10,66			20.58.14,07			B.
	β Aquarii.....	1,0	14,3	27,7	41,4	55,2	8,5	22,1	21.22.41,45				41,50	63,53					B.
	α Aquarii.....	26,3	39,8	53,1	6,8	20,2	33,6	47,0	21.57.6,69				6,71	63,40					B.
Sept. 27	(f) α Aquarii.....	21,8	35,2	48,5	2,1	15,7	29,1	42,3	21.57.2,10		-1,2	+1,6	2,13	67,96	1,59				B.
Sept. 29	β Aquarii.....	53,1	6,6	20,0	33,9	47,3	0,9	14,3	21.22.33,73				33,79	71,19	1,66				B.
	α Pegasi.....	30,2	44,0	57,6	11,8	25,8	39,4	53,3	22.56.11,73				11,66	71,36					B.
Oct. 2	\odot 1 L.....	37,8	52,9	7,7	22,9	38,0	52,8	7,9	19.9.22,85				22,98		1,57	19.10.39,07			B.
	α^* Capricorni....	51,3	5,2	18,6	33,0	46,8	0,3	14,2	20.8.32,76				32,85	76,07		20.9.49,01			B.
	(g) Neptune.....	....	....	51,0	....	17,3	....	45,0	22.35.4,14				4,21			22.36.20,53			B.
	α Pegasi.....	....	39,1	52,7	6,8	20,8	34,6	....	22.56.6,80				6,73	76,27		22.57.23,07			B.
	(h) Iris.....	51,6	5,1	18,5	32,6	46,3	59,8	13,3	23.45.32,45				32,37			23.46.48,77			B.
	α Andromedæ...	42,2	57,3	12,3	28,2	43,4	58,7	14,0	23.59.28,02				27,95	76,56		0.0.44,36			B.
Oct. 3	β Aquarii.....	46,6	0,1	13,5	27,1	40,7	54,2	7,7	21.22.27,13		-0,6		27,20	77,73	1,53	21.23.44,92			B.
	α Aquarii.....	12,0	25,3	38,7	52,2	5,8	19,2	32,5	21.56.52,24				52,29	77,74		21.58.10,05			B.
	(i) Neptune.....	16,1	29,7	43,2	57,1	10,8	24,3	37,8	22.34.57,00				57,08			22.36.14,88			B.
	α Pegasi.....	23,7	37,3	51,1	5,2	19,3	33,0	46,8	22.56.5,20				5,16	77,84		22.57.22,98			B.
	(k) Iris.....	....	....	31,2	45,1	59,0	12,2	26,0	23.44.45,03				44,98			23.46.2,85			B.
Oct. 4	ψ Capricorni....	....	28,8	43,2	58,7	13,6	28,3	....	20.35.58,52				58,66		1,65	20.37.17,97			B.
	α Aquarii.....	10,2	23,8	36,9	50,6	4,2	17,3	31,1	21.56.50,58				50,63	79,40					B.
	Bessel xxii. 517..	....	52,1	6,1	19,0	32,8	46,4	....	22.23.19,28				19,36			22.24.38,79			B.
	Iris.....	17,2	31,0	44,3	58,3	12,2	25,8	39,2	23.43.58,29				58,24			23.45.17,76			B.
	Hygeia.....	36,6	50,3	3,9	17,2	31,2	44,5	58,2	0.4.17,42				17,40			0.5.36,95			B.
Oct. 6	(l) \odot 1 L.....	....	32,5	46,0	59,8	13,4	26,8	40,3	12.43.59,86				59,94		1,65	12.45.22,12			B.
	\odot 2 L.....	28,1	41,5	55,1	8,9	22,2	35,8	49,2	12.46.8,69				8,77			12.47.30,95			B.
	(m) Polaris SP.....	50,0	....	9,0	....	42,0	....	....	13.4.53,76				2,59			1.6.24,79			B.
Oct. 7	(n) β Aquilæ.....	56,3	9,8	23,1	36,9	50,7	4,0	17,6	19.46.36,92				36,90	84,29		19.48.1,21			B.
	Bessel xxi. 861..	29,1	43,2	56,6	10,3	24,2	38,2	....	21.34.10,47				10,57			21.35.35,00			B.
	(o) H. C. 42429.....	42,7	56,2	9,9	23,8	37,3	50,9	4,3	21.37.23,58				23,66			21.38.48,09			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',337, -26',913, -13',618, +0',060, +13',573, +26',892, +40',344.

(a) Foggy. (b) 'A fainter preceded.' The noted times were 8' greater. (c) Cloudy at times. (d) 'A fainter follows a little higher in the field.'
 (e) 'The following and fainter of two near each other.' The other is B.A.C. 7069. (f) Clear but for a short time. (g) Very faint from cloud.
 (h) Very bright; of Mag. 7. (i) The noted times were 13' less. (k) The counting was found 17' slow. The hour and minute, not being set down, are taken from an Ephemeris. (l) No clock-stars to be had. (m) Heavy cumuli passing. (n) Cloudy. (o) 'The preceding and fainter of two 10' apart.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		h. m. s.	"	"	"	s.	s.	s.	
Oct. 7	(a) Bessel XXI. 1025.	5,6	19,2	32,8	46,6	0,2	13,7	27,1	21.41.46,46	-1,8	-0,6	+1,6	46,54		1,65	21.43.10,98	B.
	Bessel XXI. 1137.	25,1	38,6	52,2	6,1	19,9	33,2	47,1	21.47.6,03				6,12			21.48.30,57	B.
	(a)(b) Bessel XXI. 1206	....	26,1	39,0	53,2	....	....	....	21.49.53,31				53,42			21.51.17,87	B.
	(a) α Aquarii	5,1	18,6	31,8	45,4	59,0	....	....	21.56.45,43				45,48	84,52		21.58.9,94	B.
	(a) Neptune .....	....	4,1	17,2	....	44,8	58,2	....	22.34.31,10				31,18			22.35.55,69	B.
	α Pegasi	17,0	30,9	44,4	58,6	12,5	26,3	40,2	22.55.58,56				58,52	84,46		22.57.23,05	B.
	φ Aquarii	33,4	47,0	0,6	14,1	27,9	41,1	54,9	23.5.14,14				14,22			23.6.38,76	B.
	ψ ³ Aquarii	9,4	23,1	36,5	50,6	4,1	17,8	31,3	23.9.50,40				50,49			23.11.15,03	B.
	δ I L	50,5	4,6	18,3	32,4	46,7	0,3	14,2	23.21.32,43				32,52			23.22.57,08	B.
	Iris	4,0	17,8	31,0	45,0	58,7	12,2	26,0	23.41.44,96				44,91			23.43.9,49	B.
	27 Piscium	0,1	13,7	27,0	40,8	54,3	7,5	21,1	23.49.40,64				40,72			23.51.5,31	B.
	33 Piscium	39,8	53,2	6,7	20,5	34,1	47,4	1,0	23.56.20,38				20,46			23.57.45,05	B.
	α Andromedæ	34,1	49,4	4,4	20,0	35,2	50,5	5,9	23.59.19,92				19,89	84,63		0.0.44,49	B.
	Hygeia .....	....	40,0	....	....	....	....	....	0.2.7,05				7,03			0.3.31,63	B.
	(c) * N.P.D. 84°. 8'	49,8	4,2	17,3	31,1	44,7	58,4	11,7	0.2.31,02				31,00			0.3.55,60	B.
Oct. 8	(a)(d) ⊙ 1 L	34,2	47,7	1,1	15,0	28,4	41,9	....	12.51.14,83				14,91		1,66	12.52.40,38	B.
	⊙ 2 L .....	....	....	....	24,1	37,8	51,3	5,0	12.53.24,18				24,26			12.54.49,73	B.
	Polaris SP. ....	....	30,0	....	48,0	....	9,5	52,0	13.4.49,75				58,58			1.6.24,07	B.
	(e) Antares .....	....	....	36,2	51,6	6,8	21,7	36,5	16.18.51,58				51,72	85,76		16.20.17,43	B.
	γ Aquilæ	5,3	19,1	32,3	46,1	0,0	13,4	27,1	19.37.46,19				46,14	85,88		19.39.12,08	B.
	α Aquilæ	25,6	39,2	52,7	6,4	20,2	33,4	47,2	19.42.6,39				6,35	85,93		19.43.32,29	B.
	(a) β Aquilæ	54,8	8,1	21,6	35,3	48,9	2,2	15,8	19.46.35,24				35,22	85,95		19.48.1,17	B.
	β Aquarii	38,0	51,3	5,2	18,7	32,4	45,8	59,3	21.22.18,67				18,75	86,12		21.23.44,81	B.
	Bessel XXI. 830.	27,9	41,5	55,0	9,0	22,4	36,0	49,8	21.33.8,80				8,88			21.34.34,95	B.
	(f) Bessel XXI. 902.	6,3	....	34,2	48,3	2,2	15,9	30,0	21.35.48,19				48,31			21.37.14,39	B.
	Bessel XXI. 988.	16,1	30,0	43,7	57,7	11,7	25,3	39,2	21.39.57,67				57,79			21.41.23,87	B.
	(g) Bessel XXI. 1060.	37,2	51,3	5,1	19,2	33,4	47,2	0,9	21.43.19,19				19,31			21.44.45,39	B.
	Bessel XXI. 1137.	23,6	37,2	50,7	4,4	18,1	31,9	45,3	21.47.4,46				4,55			21.48.30,64	B.
	(h)(i) Bessel XXI. 1206.	10,2	24,4	37,8	52,0	5,9	19,5	33,3	21.49.51,87				51,98			21.51.18,07	B.
	α Aquarii	3,3	17,0	30,1	44,0	57,3	10,7	24,2	21.56.43,80				43,85	86,14		21.58.9,95	B.
	(k) Bessel XXI. 415. ....	....	40,1	53,8	8,1	21,8	35,3	....	22.18.7,82				7,93			22.19.34,05	B.
	(h)(a) Bessel XXI. 588. ....	....	12,4	26,0	39,9	53,8	8,1	....	22.26.40,04				40,14			22.28.6,27	B.
	(h)(a) Neptune	43,8	57,6	11,2	25,0	38,7	52,0	5,9	22.34.24,89				24,97			22.35.51,11	B.
	Iris	22,0	35,7	49,2	3,0	16,8	30,2	44,0	23.41.2,98				2,93			23.42.29,15	B.
	27 Piscium	58,2	12,0	25,4	39,0	52,8	5,9	19,4	23.49.38,96				39,04			23.51.5,27	B.
	33 Piscium	38,3	51,6	5,1	18,8	32,0	45,8	59,1	23.56.18,67				18,75			23.57.44,99	B.
	α Andromedæ	32,6	47,8	3,0	18,4	33,7	48,9	4,1	23.59.18,36				18,33	86,19		0.0.44,57	B.
	(l) Hygeia .....	....	....	12,0	25,2	....	....	....	0.1.25,41				25,39			0.2.51,63	B.
	δ I L	36,9	50,9	4,4	18,5	32,5	46,1	59,9	0.7.18,46				18,54			0.8.44,79	B.
	B.A.C. 205	44,9	58,2	11,7	25,5	39,0	52,2	5,8	0.36.25,33				25,41			0.37.51,69	B.
	20 Ceti	19,8	33,1	46,3	0,0	13,6	27,0	40,4	0.44.0,02				0,07			0.45.26,36	B.
	(m) Polaris	3,5	43,0	....	....	50,5	27,0	....	1.5.5,57				57,62			1.6.23,93	B.
	α Arietis	39,9	54,2	8,8	23,7	38,2	53,0	7,2	1.57.23,57				23,57	86,36		1.58.49,94	B.
	(n) Parthenope .....	....	16,8	30,2	43,7	57,1	10,4	....	2.5.43,64				43,62			2.7.10,00	B.
Oct. 10	⊙ 1 L	51,0	4,4	18,0	31,7	45,4	58,7	12,4	12.58.31,65			-0,6	31,73		1,68	13.0.0,66	B.
	⊙ 2 L	0,6	14,1	27,5	41,4	55,1	8,4	22,1	13.0.41,31				41,39			13.2.10,32	B.
	(o) α Aquarii	0,1	13,4	26,8	40,6	54,1	7,4	20,9	21.56.40,47				40,52	89,45		21.58.10,08	B.
	Bessel XII. 357.	45,1	58,8	12,7	26,7	40,6	54,1	8,0	22.15.26,57				26,67			22.16.56,25	B.
	Bessel XII. 415.	23,1	37,0	50,5	4,7	18,6	32,1	46,1	22.18.4,59				4,70			22.19.34,28	B.
	(p) Bessel XII. 517.	27,9	41,8	55,1	9,2	22,8	36,3	49,9	22.23.9,00				9,08			22.24.38,67	B.
	Bessel XII. 588.	55,7	9,0	22,8	36,7	50,3	4,1	17,7	22.26.36,62				36,72			22.28.6,31	B.
	(q) B.A.C. 7892. np.	29,0	42,7	56,4	10,6	24,4	38,0	52,0	22.30.10,44				10,55			22.31.40,15	B.
	Neptune	31,6	45,2	58,8	12,7	26,2	40,0	53,6	22.34.12,58				12,66			22.35.42,26	B.
	Bessel XII. 961.	42,8	56,2	9,4	23,1	36,8	50,2	3,6	22.44.23,16				23,23			22.45.52,84	B.
	B.A.C. 7993.	26,4	40,0	53,4	7,2	20,9	34,1	47,7	22.48.7,10				7,18			22.49.36,80	B.
	(r) Bessel XII. 1110	48,0	1,6	14,9	28,6	42,0	55,2	8,8	22.51.28,45				28,52			22.52.58,14	B.
	α Pegasi	11,8	25,7	39,2	53,4	7,2	21,2	35,1	22.55.53,36				53,32	89,64		22.57.22,95	B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,337, -26°,913, -13°,618, +0°,060, +13°,573, +26°,892, +40°,344.

(a) Cloudy. (b) 'Another precedes.' (c) 'A very faint object precedes.' The preceding object, a transit of which was taken at wire II, is the Planet. The star was observed with the Circle on the same day. (d) Partly without the dark glass. (e) Not seen before (at 3^h). (f) 'Of a bright crimson and yellow colour.' (g) 'The preceding of two.' (h) 'The following of two.' (i) 'Three others follow.' (j) 'Of Mag. 11.' Another object following a very little and of greater N.P.D. was also observed. (k) 'Others following.' (l) 'Of Mag. 11.' Another object following a very little and of greater N.P.D. was also observed. (m) Cumuli clouds passing. (n) Faint from cloud and bright moon-light. (o) The counting was 4^s fast. (p) Clouds passing. (q) 'The np of a rather close double star,' viz. Σ 2928. (r) 'A brighter precedes about 18^s.'

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		"	"	"							
Oct. 10	H. C. 45222 .....	....	1,1	14,8	28,6	42,3	55,9	....	22.58.28,54	-1,8	-0,6	+1,6	28,63		1,68	22.59.58,26			B.
	Bessel xxiii. 38..	5,3	18,9	32,1	46,1	59,3	13,0	26,1	23.1.45,83				45,87			23.3.15,50			B.
	(a) Bessel xxiii. 103.	8,8	22,1	35,9	50,0	3,6	17,2	30,7	23.4.49,75				49,83			23.6.19,47			B.
	Bessel xxiii. 325.	59,2	12,9	26,0	39,8	53,2	6,4	20,2	23.14.39,68				39,73			23.16.9,38			B.
	(b) Bessel xxiii. 409.	20,8	34,2	47,5	1,1	14,7	28,0	41,6	23.19.1,13				1,20			23.20.30,85			B.
	Bessel xxiii. 486.	0,5	13,8	27,1	40,8	54,2	7,6	21,0	23.22.40,71				40,75			23.24.10,41			B.
	Bessel xxiii. 550.	43,0	56,4	9,8	23,4	36,9	50,2	3,8	23.25.23,36				23,40			23.26.53,06			B.
	(c) Iris	2,1	15,6	29,2	42,7	56,8	10,1	24,0	23.39.42,93				42,88			23.41.12,56			B.
	Hygeia	22,1	34,8	48,2	1,7	15,0	28,8	42,0	0.0.1,80				1,78			0.1.31,48			B.
	ν Piscium	33,3	46,8	0,1	13,7	27,3	40,7	54,1	1.32.13,71				13,69			1.33.43,50			B.
	2 L.	3,2	17,1	30,7	44,8	58,6	12,1	26,0	1.40.44,64				44,63			1.42.14,45			B.
	α Arietis	36,2	50,9	5,3	20,1	34,9	49,1	3,8	1.57.20,04				20,04	89,91		1.58.49,88			B.
	(d) Parthenope .....	....	....	....	0,3	14,1	27,2	41,0	2.4.0,38				0,46			2.5.30,30			B.
Oct. 11	(e) ⊙ 1 L.	30,1	43,8	57,2	11,0	24,7	38,1	51,8	13.2.10,95				11,03		1,63	13.3.41,63			B.
	⊙ 2 L.	39,9	53,3	7,0	20,8	34,2	47,8	1,3	13.4.20,61				20,69			13.5.51,30			B.
	Arcturus	38,1	52,5	6,7	21,2	35,6	49,9	4,0	14.7.21,14				21,14	90,70					B.
	Neptune	25,7	39,2	52,7	6,7	20,3	33,9	47,7	22.34.6,60				6,69			22.35.37,94			B.
	α Pegasi	10,1	23,9	37,8	51,8	5,8	19,6	33,2	22.55.51,74				51,70	91,26					B.
	Iris	24,1	38,0	51,3	5,2	18,7	32,3	46,0	23.39.5,09				5,04			23.40.36,36			B.
Oct. 14	⊙ 2 L. ....	....	....	7,8	21,7	35,2	....	....	13.15.21,56			+2,5	21,70		1,49	13.16.56,99			B.
	α Aquilæ	15,8	29,2	42,6	56,6	10,2	23,7	37,3	19.41.56,49				56,50	95,68		19.43.32,19			B.
	β Aquilæ	45,0	58,2	11,8	25,3	39,1	52,2	5,9	19.46.25,36				25,38	95,69		19.48.1,08			B.
	(f) Neptune	8,6	22,2	35,6	49,3	3,2	17,0	30,3	22.33.49,46				49,60			22.35.25,47			B.
	(g) α Pegasi	5,3	19,3	32,8	47,0	1,2	14,8	28,7	22.55.47,02				47,02	95,91		22.57.22,91			B.
	Iris .....	....	....	....	21,7	35,2	49,8	2,2	23.37.21,76				21,76			23.38.57,70			B.
Oct. 15	α Arietis	28,8	43,2	57,7	12,6	27,2	41,6	56,1	1.58.12,45				12,48	37,53	1,17				B.
	(h) Parthenope .....	....	3,1	17,1	30,3	44,1	58,0	....	2.0.30,52				30,56			2.1.8,09			B.
	Polaris SP. ....	....	15,0	....	33,5	22,0	....	40,0	13.5.36,01				46,31		1,22	1.6.24,22			B.
Oct. 16	⊙ 1 L.	54,0	7,6	21,2	35,2	48,9	2,2	15,8	13.21.34,99				35,13			13.22.13,05			B.
	⊙ 2 L.	4,7	18,1	31,5	45,4	59,2	12,7	26,3	13.23.45,41				45,55			13.24.23,47			B.
	Polaris .....	....	32,0	9,5	....	42,5	....	56,5	1.5.55,15				45,82			1.6.24,34			B.
	α Arietis	27,7	42,2	56,7	11,6	26,1	....	....	1.58.11,44				11,47	38,56					B.
	Parthenope .....	....	8,4	21,8	35,2	49,0	2,1	....	1.59.35,30				35,34			2.0.13,90			B.
	(g)(i) Polaris SP.	31,3	14,0	....	....	20,5	59,0	38,5	13.5.35,22				45,52		1,61	1.6.24,83			B.
Oct. 17	(g)(k) ⊙ 1 L. ....	....	50,0	3,7	17,6	31,1	45,0	....	13.25.17,48				17,62			13.25.56,95			B.
	(l) α Aquarii	49,4	3,2	16,3	....	43,4	56,7	10,2	21.57.29,88				29,98	39,90					B.
	Neptune	52,9	6,2	20,0	33,8	47,5	1,1	14,7	22.34.33,74				33,88			22.35.13,83			B.
Oct. 22	(m) ⊙ 1 L.	17,7	31,7	44,8	59,0	12,8	26,2	40,0	13.43.58,89			-0,2	59,05		1,62	13.44.46,03			B.
	⊙ 2 L.	29,1	42,7	56,3	10,4	24,2	38,0	51,3	13.46.10,28				10,44			13.46.57,42			B.
Oct. 24	(g)(n) Neptune	19,3	....	....	58,6	....	13,0	40,3	22.33.59,34				59,49			22.34.50,30			B.
	(g)(o) α Pegasi	50,2	4,0	17,8	32,0	46,0	59,9	13,7	22.56.31,94				31,96	50,89		22.57.22,80			B.
	(o)(p) Hygeia .....	....	....	....	....	....	8,2	22,0	23.52.41,37				41,42			23.53.32,32			B.
	(q) β Ceti	35,3	49,4	3,7	18,2	32,4	46,3	0,6	0.35.17,99				18,20	50,86		0.36.9,15			B.
	Parthenope .....	....	....	....	....	13,4	27,0	40,7	1.52.0,07				0,14			1.52.51,28			B.
	α Arietis	15,2	29,7	44,2	59,0	13,8	28,2	42,7	1.57.58,97				59,03	51,07		1.58.50,07			B.
Oct. 27	⊙ 1 L.	16,1	29,8	43,4	57,8	11,5	25,2	39,1	14.2.57,56			+0,2	57,81		1,58	14.3.52,98			B.
	⊙ 2 L.	29,0	42,6	56,1	10,2	24,0	38,0	51,8	14.5.10,24				10,49			14.6.5,67			B.
	Arcturus	13,6	28,1	42,0	56,7	11,0	25,2	39,4	14.7.56,57				56,69	55,18					B.
Oct. 30	Arcturus	7,8	22,0	36,1	50,7	5,1	19,1	33,7	14.7.50,64			+0,3	50,76	61,13	1,57				B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',337, -26',913, -13',618, +0',060, +13',573, +26',892, +40',344.

Oct. 15, 9^h, Hardy was put forward 1^m. The rate seems to have changed in consequence.

(a) 'The north-preceding of two.' The other is Bessel xxiii. 104. (b) 'The north-following of two.' (c) 'Of Mag. 7.' (d) The observer thought this object too bright for the Planet. (e) Some very bright spots towards 2 L. were noticed. (f) Unsteady and disappearing at times. (g) Cloudy. (h) 'The following of two of the same Mag. and N.P.D.' (i) Very steady. (k) Partly without the dark glass. (l) Imperfect illumination of the field, and the star badly defined. (m) Very great motion and no definition. (n) Extremely faint. (o) Faint. (p) The observer was delayed at the Northumberland Dome. (q) Flaring.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Oct. 31	(a) ☉ 1 L.....	39,7	53,7	7,1	21,5	35,4	49,2	3,1	14. 18. 21,38	-1,8	+0,3	+3,5	21,63		1,57	14. 19. 22,77			B.
	☉ 2 L.....	53,0	7,0	20,7	35,0	49,0	2,6	16,6	14. 20. 34,84				35,09			14. 21. 36,23			B.
	Polaris SP.			21,0	7,5	57,5	32,3		13. 5. 9,05				19,18		1,51				B.
	(b) Spica.....	37,3	51,1	4,7	18,6	32,1	45,8		13. 16. 18,44				18,67	62,62		13. 17. 21,37			B.
	Arcturus.....	6,0	20,1	34,2	48,8	3,2	17,3	31,6	14. 7. 48,75				48,87	63,03		14. 8. 51,62			B.
Nov. 1	☉ 1 L.....	32,7	46,6	0,2	14,4	28,4	42,2	56,1	14. 22. 14,37				14,64			14. 23. 17,40			B.
	☉ 2 L.....	46,4	0,2	14,1	28,3	42,2	56,1	10,1	14. 24. 28,20				28,47			14. 25. 31,24			B.
	♈ Aquarii.....	45,8	59,6	13,1	26,8	40,9	54,3	8,2	21. 0. 26,96				27,20			21. 1. 30,38			B.
	♈ Capricorni....	46,2	0,2	13,8	28,1	42,2	56,0	10,2	21. 6. 28,10				28,37			21. 7. 31,56			B.
	♈ Aquarii.....	0,8	14,2	27,4	41,4	55,0	8,2	21,7	21. 22. 41,24				41,46	63,07		21. 23. 44,66			B.
	♏ 1 L.....	32,8	47,4	1,6	16,5	31,1	45,3	0,0	21. 29. 16,39				16,67			21. 30. 19,88			B.
	♏ Capricorni....	5,2	19,0	33,0	47,1	1,6	15,2	29,2	21. 37. 47,19				47,46			21. 38. 50,68			B.
	Neptune.....	45,1	58,9	12,3	26,1	40,0	53,3	7,1	22. 33. 26,12				26,35			22. 34. 29,63			B.
	(c) Iris.....				8,2	22,0	35,2	48,8	23. 34. 8,17				8,27			23. 35. 11,61			B.
	(d) Hygeia.....		51,0		16,4	30,3	44,3	57,8	23. 49. 17,14				17,27			23. 50. 20,63			B.
	α Andromedæ ...	55,2	10,3	25,7	41,1	56,3	11,4	26,8	23. 59. 40,97				41,06	63,36		0. 0. 44,43			B.
	α Arietis.....		17,3	31,9	46,8	1,3	15,8		1. 57. 46,62				46,74	63,41		1. 58. 50,23			B.
	Regulus.....	40,4	54,2	7,8	21,9	35,7	49,2	3,2	9. 59. 21,77				21,86	65,23	1,33	10. 0. 27,11			B.
Nov. 3	☉ 1 L.....	20,6	34,6	48,3	2,3	16,5	30,3	44,2	14. 30. 2,40				2,67			14. 31. 8,17			B.
	☉ 2 L.....	34,9	48,8	2,4	16,9	30,9	44,6	58,5	14. 32. 16,72				16,99			14. 33. 22,50			B.
	♈ Aquarii.....	23,2	36,8	50,2	3,7	17,1	30,5	44,1	21. 57. 3,66				3,85	65,81		21. 58. 9,77			B.
	Neptune.....	38,6	52,2	5,6	19,7	33,2	47,0	0,5	22. 33. 19,55				19,78			22. 34. 25,73			B.
	(e) ♈ Aquarii.....	56,1	10,2	24,2	38,1	51,8	5,8	19,7	22. 40. 37,99				38,26			22. 41. 44,22			B.
	♈ Aquarii.....	58,1	12,1	26,1	40,3	54,3	8,4	22,3	22. 45. 40,22				40,49			22. 46. 46,45			B.
	α Pegasi.....		49,0	2,7	16,5	30,6	44,2		22. 56. 16,60				16,69	66,04		22. 57. 22,66			B.
	(f) ♏ 1 L.....	55,1	9,0	22,8	37,2	51,2	5,0	19,0	23. 5. 37,04				37,28			23. 6. 43,26			B.
	B.A.C. 8221.....	10,5	24,2	37,9	52,1	6,1	19,7	33,8	23. 28. 52,04				52,29			23. 29. 58,29			B.
	B.A.C. 8239.....	41,0	54,3	8,3	22,1	36,0	49,9	3,6	23. 32. 22,17				22,41			23. 33. 28,41			B.
	Iris.....	43,1	56,8	10,1	23,8	37,5	51,0	4,2	23. 34. 23,79				23,89			23. 35. 29,89			B.
	(d) Hygeia.....	57,7		24,2	37,4	51,6		18,2	23. 48. 37,80				37,93			23. 49. 43,95			B.
	(g) β Ceti.....		34,4	48,3	2,8	17,1	31,2		0. 35. 2,76				3,04	65,99		0. 36. 9,10			B.
	(g) α Arietis.....	0,1	14,6	28,6		58,6	13,2	27,4	1. 57. 43,76				43,88	66,28		1. 58. 50,02			B.
Nov. 4	(h) β Aquarii.....	56,7	10,2	23,3	37,1	50,7	4,1	17,7	21. 22. 37,12				37,34	67,15	1,57	21. 23. 44,55			B.
	Neptune.....	35,4	49,1	2,4	16,3	30,2	43,8	57,1	22. 33. 16,33				16,56			22. 34. 23,84			B.
	α Pegasi.....	33,8		1,2	15,3	29,3	43,1	57,1	22. 56. 15,34				15,43	67,29		22. 57. 22,73			B.
	B.A.C. 8221.....	9,1	23,1	36,5	50,8	4,5	18,3	32,3	23. 28. 50,65				50,90			23. 29. 58,23			B.
	Iris.....	54,2	7,9	21,1	35,0	48,6	1,8	15,6	23. 34. 34,89				34,99			23. 35. 42,33			B.
	(b)(i) ♏ 1 L.....	52,1	5,8	19,3	33,7	47,6	1,3	15,0	23. 51. 33,54				33,76			23. 52. 41,11			B.
	(b) α Andromedæ...	51,1	6,2	21,5	36,9	52,2	7,3	22,8	23. 59. 36,86				36,95	67,44		0. 0. 44,31			B.
	(k) 12 Ceti.....		54,1	7,3	21,0	34,7	48,1		0. 21. 21,04				21,26			0. 22. 28,64			B.
	13 Ceti.....	49,2	3,1	16,0	29,8	43,3	57,0	10,1	0. 26. 29,79				30,01			0. 27. 37,40			B.
	Parthenope.....	24,3	38,1	50,6	4,8	17,8	31,3	44,7	1. 42. 4,51				4,66			1. 43. 12,12			B.
Nov. 5	☉ 1 L.....	12,2	26,1	40,2	54,4	8,6	22,3	36,4	14. 37. 54,31				54,58			14. 39. 2,78			B.
	☉ 2 L.....	27,0	40,9	54,8	9,1	23,1	37,0	51,1	14. 40. 9,00				9,27			14. 41. 17,47			B.
Nov. 6	(k) ☉ 2 L.....	24,2	38,3	52,3	6,6	20,6	34,4	48,3	14. 44. 6,39			+2,3	6,58		1,43	14. 45. 16,28			B.
	(k) ♏ 1 L.....	1,1	14,9	28,3	42,5	56,3	10,0	23,7	1. 22. 42,40				42,48			1. 23. 52,81			B.
	♏ Piscium.....	52,9	6,2	19,8	33,2	47,0	0,2	13,9	1. 32. 33,31				33,37			1. 33. 43,71			B.
	♏ Piscium.....	43,4	57,1	10,3	24,2	38,1	51,6	5,1	1. 36. 24,26				24,30			1. 37. 34,64			B.
	α Arietis.....	56,1	10,2	25,1	40,0	54,3	9,1	23,3	1. 57. 39,72				39,80	70,37					B.
	α Ceti.....	41,7	55,1	8,3	22,1	35,9	49,1	2,6	2. 53. 22,11				22,18	70,43					B.
Nov. 8	(b) ☉ 2 L.....				3,8	17,8	31,9	45,9	14. 52. 3,71			+0,4	3,90			14. 53. 16,47			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40°,337, - 26°,913, - 13°,618, + 0°,060, + 13°,573, + 26°,892, + 40°,344.

(a) Steady. (b) Cloudy. (c) 'Mag. 7.8.' (d) Faint. (e) Bad definition. (f) Great motion. (g) Through cloud: scarcely visible.
(h) Flaring. (i) Badly defined and unsteady. (k) Faint from cloud.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	s.	h.	m.	s.
Nov. 10	☉ 2 L.....	21,3	35,9	49,4	4,0	18,1	32,1	46,2	15. 0. 3,86	-1,8	+0,4	+2,5	4,05		1,46	15. 1. 19,43			B.
	(a) 29 Capricorni ...	32,1	....	....	....	29,3	43,3	57,2	21. 6. 14,96				15,15			21. 7. 30,90			B.
	(b) Bessel xxi. 357..	46,3	1,0	....	27,3	41,1	54,3	8,0	21. 14. 27,36				27,53			21. 15. 43,29			B.
	Bessel xxi. 418..	23,2	37,1	50,9	5,0	18,8	32,3	46,1	21. 17. 4,77				4,95			21. 18. 20,71			B.
	Bessel xxi. 495..	27,9	41,3	55,2	9,1	23,1	36,5	50,3	21. 20. 9,06				9,24			21. 21. 25,01			B.
	β Aquarii.....	48,1	1,3	14,8	28,3	42,0	55,4	9,1	21. 22. 28,43				28,58	75,83		21. 23. 44,35			B.
	γ Tauri.....	24,2	38,2	52,1	6,1	20,2	34,2	48,0	4. 10. 6,14				6,18			4. 11. 22,36			B.
	δ Tauri.....	35,4	49,4	3,3	17,8	32,0	45,9	59,9	4. 14. 17,67				17,73			4. 15. 33,92			B.
	Aldebaran.....	27,2	41,4	55,2	9,4	23,4	37,4	51,3	4. 26. 9,33				9,38	76,28		4. 27. 25,58			B.
	η 2 L.....	15,3	30,1	44,9	59,4	14,2	28,6	43,2	4. 44. 59,39				59,47			4. 46. 15,69			B.
	Rigel.....	28,5	41,9	55,3	9,2	22,8	36,4	49,7	5. 6. 9,12				9,28	76,12		5. 7. 25,52			B.
	β Tauri.....	53,7	9,0	24,1	39,8	54,9	10,1	25,2	5. 15. 39,55				39,61	76,25		5. 16. 55,86			B.
	114 Tauri.....	....	....	....	27,8	42,9	57,1	11,6	5. 17. 28,08				28,17			5. 18. 44,42			B.
	Arcturus.....	52,1	6,3	20,7	35,1	49,6	3,7	18,0	14. 8. 35,07				35,15	16,85	1,52				B.
Nov. 11	(c) ☉ 1 L.....	6,8	21,0	34,9	49,4	3,5	17,3	31,8	15. 2. 49,25				49,44			15. 3. 6,28			B.
	☉ 2 L.....	23,1	37,1	51,0	5,3	19,3	33,7	47,8	15. 5. 5,33				5,52			15. 5. 22,36			B.
	α Ceti.....	34,7	48,1	1,3	15,2	28,5	42,1	55,4	2. 54. 15,04				15,11	17,54					B.
	(d) H. C. 5771.....	48,9	2,9	16,8	31,0	45,2	59,1	13,0	2. 59. 30,98				31,03			2. 59. 48,63			B.
	Bessel iii. 12....	....	22,7	36,6	50,1	3,9	17,8	....	3. 1. 50,22				50,26			3. 2. 7,86			B.
	(e) H. C. 5967.....	42,8	56,8	10,7	25,0	38,2	53,2	7,3	3. 5. 24,86				24,93			3. 5. 42,54			B.
Nov. 12	Parthenope.....	....	....	....	....	13,2	26,1	39,9	1. 36. 59,46				59,55		1,59	1. 37. 18,65			B.
	α Arietis.....	47,2	1,8	16,2	31,2	45,6	0,2	14,7	1. 58. 30,98				31,07	19,12					B.
Nov. 13	☉ 1 L.....	11,7	25,4	39,4	53,8	7,9	21,8	36,0	15. 10. 53,71				53,91		1,61	15. 11. 13,94			B.
	☉ 2 L.....	27,8	41,8	56,0	10,2	24,2	38,6	53,0	15. 13. 10,22				10,42			15. 13. 30,45			B.
	Polaris SP.....	....	....	....	44,5	35,5	....	52,5	15. 5. 47,07				55,04			1. 6. 16,54			B.
	Arcturus.....	47,6	1,9	16,0	30,3	44,8	59,0	13,2	14. 8. 30,40				30,48	21,56		14. 8. 52,05			B.
Nov. 14	☉ 1 L.....	15,1	29,2	43,1	57,8	11,9	26,2	40,1	15. 14. 57,63				57,83			15. 15. 19,47			B.
	☉ 2 L.....	32,0	46,1	0,2	14,4	28,8	42,8	57,0	15. 17. 14,47				14,67			15. 17. 36,32			B.
	Polaris.....	....	44,0	12,0	4,0	....	....	6,5	1. 6. 0,94				54,00			1. 6. 16,30			B.
	(f) Parthenope.....	0,2	13,6	27,9	....	54,8	....	21,8	1. 35. 41,05				41,14			1. 36. 3,48			B.
	α Arietis.....	44,1	58,2	12,9	27,8	42,4	57,0	11,4	1. 58. 27,69				27,78	22,41		1. 58. 50,14			B.
	α Ceti.....	29,8	43,1	56,6	10,2	23,9	37,1	50,7	2. 54. 10,20				10,27	22,40		2. 54. 32,69			B.
Nov. 15	☉ 1 L.....	19,3	33,6	47,8	2,1	16,3	30,4	44,8	15. 19. 2,04				2,24		1,57	15. 19. 25,51			B.
	☉ 2 L.....	36,3	50,4	4,3	19,1	33,1	47,2	1,6	15. 21. 18,86				19,06			15. 21. 42,33			B.
	(g) Neptune.....	7,4	21,2	34,8	48,5	2,1	15,8	29,3	22. 33. 48,45				48,61			22. 34. 12,36			B.
	Parthenope.....	....	37,0	50,2	....	16,8	30,5	43,9	1. 35. 3,62				3,71			1. 35. 27,65			B.
	α Arietis.....	42,4	56,9	11,4	26,2	41,0	55,2	10,0	1. 58. 26,16				26,25	23,95		1. 58. 50,22			B.
	α Ceti.....	28,2	41,5	55,1	8,7	22,1	35,4	49,2	2. 54. 8,60				8,67	24,01		2. 54. 32,70			B.
	Aldebaran.....	19,6	33,4	47,3	1,7	15,5	29,6	43,7	4. 27. 1,54				1,59	24,16		4. 27. 25,72			B.
Nov. 16	(h) η 2 L.....	6,8	21,1	35,0	49,3	3,3	17,3	31,6	10. 37. 49,20		+0,1		49,22		1,42	10. 38. 15,25			B.
Nov. 17	(h)(i) ☉ 1 L.....	31,1	45,3	59,3	14,2	28,2	42,3	56,6	15. 27. 13,86				14,06			15. 27. 40,37			B.
	☉ 2 L.....	48,6	2,8	17,0	31,3	45,7	0,2	14,3	15. 29. 31,41				31,61			15. 29. 57,93			B.
Nov. 18	☉ 1 L.....	38,1	52,7	6,6	21,1	35,4	49,6	3,7	15. 31. 21,02				21,22			15. 31. 48,96			B.
	☉ 2 L.....	56,0	10,0	24,2	38,8	53,1	7,2	21,4	15. 33. 38,68				38,88			15. 34. 6,62			B.
	(a) α Aquilæ.....	23,0	36,3	50,0	3,8	17,3	31,0	44,3	19. 43. 3,67				3,70	27,94		19. 43. 31,69			B.
	Bessel xxi. 861..	24,8	38,4	52,1	6,1	20,2	33,3	47,4	21. 35. 6,04				6,20			21. 35. 34,30			B.
	H. C. 42429.....	38,6	52,0	5,7	19,3	33,1	46,4	0,2	21. 38. 19,33				19,48			21. 38. 47,58			B.
	Bessel xxi. 988..	13,3	27,3	41,1	55,1	9,0	22,9	36,4	21. 40. 55,01				55,19			21. 41. 23,29			B.
	Neptune.....	2,3	16,0	29,8	43,4	57,2	10,3	24,2	22. 33. 43,31				43,46			22. 34. 11,62			B.
	(k) Iris.....	12,0	....	....	....	6,1	20,2	33,4	23. 41. 53,72				53,77			23. 42. 21,99			B.
	α Arietis.....	38,0	52,4	7,2	21,9	36,4	50,8	5,6	1. 58. 21,75				21,82	28,38		1. 58. 50,18			B.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40°,337, -26°,913, -13°,618, +0°,060, +13°,573, +26°,892, +40°,344.

Before the observation of Arcturus Nov. 10, Hardy was put forward 1^m.

(a) Cloudy. (b) Faint at times. (c) Cloudy. Without the dark glass, excepting some wires of I L. (d) 'A brighter of the same R.A. much lower in the field.' (e) 'Two preceded about 1^m, and one of less N.P.D. followed.' (f) Very faint. (g) The times set down were 6^s greater. (h) No clock-stars could be obtained. (i) Very bad definition. (k) The last three wires were each set down 30^s greater.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.				h.	m.	s.	
Nov. 18	α Ceti.....	....	....	50,6	4,3	17,9	31,2	44,8	2. 54. 4,28	-1,8	+0,1	+2,3	4,34	28,35	1,42	2. 54. 32,75			B.
	Aldebaran.....	15,2	29,2	43,0	57,2	11,3	25,2	39,3	4. 26. 57,20				57,23	28,56		4. 27. 25,73			B.
Nov. 19	\odot 1 L.....	46,3	0,7	14,9	29,4	43,6	57,9	12,2	15. 35. 29,29				29,49			15. 35. 58,65			B.
	\odot 2 L.....	4,3	18,6	32,8	47,3	1,5	15,9	30,2	15. 37. 47,23				47,43			15. 38. 16,59			B.
	Arcturus.....	....	....	7,1	21,9	36,1	50,3	4,7	14. 8. 21,71				21,78	30,36	1,41	14. 8. 52,20			B.
Nov. 20	\odot 1 L.....	55,3	9,4	23,8	38,3	52,8	6,9	21,1	15. 39. 38,23				38,43			15. 40. 8,94			B.
	\odot 2 L.....	13,3	27,7	41,8	56,3	10,9	25,2	39,4	15. 41. 56,37				56,57			15. 42. 27,08			B.
	α Aquilæ.....	20,0	33,7	47,0	1,0	14,5	28,1	41,8	19. 43. 0,87				0,90	30,72		19. 43. 31,65			B.
	Neptune.....	0,0	13,6	27,0	41,0	54,7	8,1	21,8	22. 33. 40,88				41,03			22. 34. 11,95			B.
	Iris.....	....	52,0	5,2	19,0	32,6	46,1	....	23. 43. 18,98				19,03			23. 43. 50,01			B.
	α Arietis.....	35,2	49,9	4,2	19,3	33,7	48,2	2,8	1. 58. 19,05				19,12	31,08		1. 58. 50,24			B.
	α Ceti.....	21,1	34,3	47,8	1,4	15,0	28,4	41,7	2. 54. 1,38				1,44	31,26		2. 54. 32,61			B.
	(a) Rigel.....	13,4	26,8	40,4	54,2	8,0	21,3	34,7	5. 6. 54,11				54,26	31,32		5. 7. 25,56			B.
Nov. 21	(b) Iris.....	....	....	....	....	....	32,2	45,7	23. 44. 5,13				5,18		1,44	23. 44. 37,60			B.
	Aldebaran.....	11,1	25,1	38,9	53,2	7,2	21,2	35,0	4. 26. 53,10				53,13	32,71					B.
Nov. 22	\odot 1 L.....	15,7	30,1	44,3	58,9	13,4	27,5	41,9	15. 47. 58,83			+0,9	59,05		1,44	15. 48. 32,34			T.
	\odot 2 L.....	34,3	48,6	2,8	17,4	31,8	46,0	0,6	15. 50. 17,36				17,58			15. 50. 50,87			T.
	(c) α Pegasi.....	....	....	....	....	2,8	16,4	30,4	22. 56. 48,73				48,80	33,69		22. 57. 22,52			T.
	(c) β Ceti.....	52,3	6,4	20,7	34,9	49,2	3,4	17,6	0. 35. 34,93				35,15	33,74		0. 36. 8,97			T.
	Parthenope.....	45,0	58,0	....	25,6	38,8	52,3	5,6	1. 31. 25,28				25,40			1. 31. 59,27			T.
	(d) α Arietis.....	32,4	46,9	1,3	16,2	30,7	45,2	59,8	1. 58. 16,07				16,19	34,01		1. 58. 50,09			T.
Nov. 24	(e) \odot 2 L.....	58,2	12,7	26,5	41,4	....	10,1	....	15. 58. 41,33			+4,2	41,68		1,41	15. 59. 17,87			T.
	α Aquarii.....	52,5	5,7	19,1	32,3	46,1	59,5	13,1	21. 57. 32,68				32,93	36,45		21. 58. 9,47			T.
	Neptune.....	....	9,9	23,7	37,4	51,2	4,7	....	22. 33. 37,38				37,67			22. 34. 14,25			T.
	α Pegasi.....	4,1	17,7	31,7	45,7	59,7	13,6	27,6	22. 56. 45,73				45,88	36,59		22. 57. 22,48			T.
	Iris.....	53,9	7,2	20,7	34,6	48,0	1,4	14,8	23. 46. 34,37				34,54			23. 47. 11,19			T.
	H. C. 47030.....	40,6	53,9	7,4	20,9	34,7	48,0	1,3	23. 51. 20,97				21,23			23. 51. 57,88			T.
	Bessel xxiii. 1143	53,9	7,1	20,1	34,1	47,6	0,9	14,5	23. 54. 34,03				34,26			23. 55. 10,91			T.
	α Andromedæ...	21,6	36,7	51,9	7,3	22,5	37,8	53,2	0. 0. 7,29				7,44	36,75		0. 0. 44,10			T.
	(f) Parthenope.....	....	....	....	37,2	51,0	4,0	17,3	1. 30. 37,16				37,37			1. 31. 14,12			T.
	(g) Bessel i. 667....	....	21,1	34,4	48,3	2,0	15,6	....	1. 35. 48,28				48,43			1. 36. 25,18			T.
	* N.P.D. 85° 20'	33,7	47,2	0,7	14,2	28,0	41,2	54,6	1. 41. 14,23				14,41			1. 41. 51,17			T.
	Bessel i. 801....	31,3	44,8	58,2	12,0	25,6	39,2	52,9	1. 44. 12,00				12,15			1. 44. 48,91			T.
	Bessel i. 896....	18,3	32,2	46,1	0,0	14,2	28,1	42,1	1. 50. 0,14				0,29			1. 50. 37,06			T.
	Bessel i. 948....	57,4	11,2	25,0	39,0	53,0	6,7	20,5	1. 52. 38,98				39,13			1. 53. 15,90			T.
	Bessel i. 1005....	0,3	13,8	27,2	41,2	54,7	8,3	21,8	1. 55. 41,04				41,20			1. 56. 17,97			T.
	α Arietis.....	29,5	44,2	58,4	13,3	28,1	42,3	56,9	1. 58. 13,24				13,43	36,76		1. 58. 50,21			T.
	Bessel ii. 31....	15,3	28,8	42,5	56,6	10,2	23,9	37,3	2. 2. 56,23				56,37			2. 3. 33,15			T.
	Bessel ii. 96....	43,7	57,6	11,1	25,1	39,0	52,3	6,2	2. 6. 25,00				25,15			2. 7. 1,93			T.
	Aldebaran.....	....	20,8	34,6	49,0	2,8	16,7	....	4. 26. 48,78				48,94	36,94		4. 27. 25,86			T.
	Arcturus.....	31,7	46,0	0,0	14,6	29,0	43,1	57,4	14. 8. 14,54				14,72	37,51	1,42	14. 8. 52,20			T.
	ϵ Bootis.....	5,6	20,7	35,7	51,0	6,3	21,3	36,7	14. 37. 51,04				51,20	37,61		14. 38. 28,71			T.
Nov. 25	\odot 1 L.....	52,1	6,3	20,6	35,2	49,4	4,1	18,4	16. 0. 35,16				35,51			16. 1. 13,10			T.
	(h) \odot 2 L.....	11,1	25,7	39,9	54,7	9,0	23,5	37,8	16. 2. 54,53				54,88			16. 3. 32,47			T.
	α Ophiuchi.....	42,3	56,0	9,6	23,6	37,4	51,4	4,9	17. 27. 23,60				23,75	37,69		17. 28. 1,42			T.
	Neptune.....	55,8	9,5	22,9	37,0	50,5	3,9	17,8	22. 33. 36,77				37,06			22. 34. 15,04			T.
	Iris.....	47,2	0,7	13,9	27,8	41,1	54,8	8,3	23. 47. 27,69				27,86			23. 48. 5,91			T.
	α Andromedæ...	20,3	35,6	50,6	6,1	21,6	36,7	51,7	0. 0. 6,09				6,24	37,93		0. 0. 44,30			T.
	Parthenope.....	35,9	49,0	2,6	16,1	29,8	43,1	....	1. 30. 16,15				16,36			1. 30. 54,51			T.
	Bessel i. 858....	21,8	35,7	49,0	3,0	16,6	30,4	44,1	1. 47. 2,94				3,08			1. 47. 41,25			T.
	(i) Bessel i. 896....	16,7	31,0	44,7	58,8	12,8	26,6	40,6	1. 49. 58,75				58,90			1. 50. 37,07			T.
	(k) Bessel i. 980....	31,3	45,0	58,3	12,2	25,9	39,1	52,7	1. 54. 12,07				12,23			1. 54. 50,40			T.
	α Arietis.....	27,8	42,7	57,2	11,9	26,6	40,9	55,7	1. 58. 11,83				12,02	38,17		1. 58. 50,20			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40°, 337, - 26°, 913, - 13°, 618, + 0°, 060, + 13°, 573, + 26°, 892, + 40°, 344.

(a) Badly defined and sometimes scarcely visible from cloud. (b) Quite clouded till wire VI. The counting was 17s slow, and the times have been corrected accordingly. (c) Cloudy. (d) The times set down were 1s greater. (e) Clouds passing. (f) Extremely faint. 'A bright object preceded and two fainter followed.' (g) 'A double star: several other objects.' The other component is Bessel i. 666. (h) Wires III and IV observed confusedly. (i) The noted times were 30s less. (k) 'The south-preceding of a coarsely double star.' (l) 'A brighter of less N.P.D. followed a few seconds.' The following star is Bessel i. 981.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		"	"	"					
Nov. 26	(a) Parthenope	16,2	29,7	43,0	56,3	9,7	23,2	36,5	1. 29. 56,37	-1,8	+0,9	+4,2	56,58		1,41	1. 30. 36,17	T.
	B.A.C. 524.	7,6	21,5	35,0	49,0	3,0	16,9	30,9	1. 33. 49,13				49,28			1. 34. 28,87	T.
	o Piscium.	14,1	27,6	41,2	55,0	8,6	22,1	35,7	1. 36. 54,90				55,06			1. 37. 34,65	T.
	(b) * N.P.D. 85°. 20'	30,8	44,6	57,6	11,5	24,9	38,2	51,8	1. 41. 11,34				11,52			1. 41. 51,12	T.
	(c) Bessel 1. 801	28,3	41,9	55,2	9,2	22,8	36,6	49,8	1. 44. 9,12				9,27			1. 44. 48,87	T.
	(d) Bessel 1. 909. . . .	59,8	13,2	26,6	40,2	53,8	7,1	20,7	1. 50. 40,20				40,38			1. 51. 19,99	T.
	(e) Bessel 1. 980. . . .	30,2	43,6	57,0	10,8	24,6	38,0	51,3	1. 54. 10,78				10,94			1. 54. 50,55	T.
	(c) α Arietis.	26,7	41,2	55,6	10,4	25,1	39,6	54,1	1. 58. 10,38				10,57	39,62			T.
	α Ceti	12,6	25,9	39,4	53,0	6,4	19,7	33,2	2. 53. 52,88				53,07	39,66			T.
Nov. 27	Arcturus.	27,4	41,9	55,9	10,5	24,9	38,9	53,2	14. 8. 10,38				10,56	41,73	1,38		T.
Nov. 29	⊙ 1 L.	51,0	5,2	19,8	34,6	49,0	3,5	18,0	16. 17. 34,44		+1,3		34,79		1,45	16. 18. 17,97	T.
	⊙ 2 L.	10,9	25,4	39,6	54,7	8,9	23,5	37,9	16. 19. 54,41				54,76			16. 20. 37,95	T.
	(a)(f) α Ophiuchi. . . .	50,5	4,1	18,1	31,8	45,5	59,1	17. 27. 17,96				18,13	43,32				T.
	(a) δ Ursæ Minoris. . . .	39,0	23,5	15,0	3,0	46,8	....	....	18. 19. 13,48				10,34				T.
	(g)(h) δ Capricorni . . .	24,2	38,3	52,2	....	20,8	....	....	21. 38. 6,46				6,80			21. 38. 50,31	T.
	(g)(i) α Capricorni . . .	46,1	0,0	13,6	27,8	....	....	....	21. 44. 27,73				28,06			21. 45. 11,57	T.
	(g)(k) α Aquarii.	45,2	58,8	....	25,7	....	....	5,8	21. 57. 25,59				25,86	43,46			T.
Dec. 2	⊙ 1 L.	56,5	10,1	23,6	37,8	51,5	5,1	19,0	0. 19. 37,66				37,94			0. 20. 26,54	T.
	β Ceti	37,2	51,4	5,6	20,0	34,3	48,2	2,4	0. 35. 19,87				20,22	48,58			T.
	(l) B.A.C. 205. . . . .	....	35,7	49,2	2,7	16,3	29,7	....	0. 37. 2,72				3,01			0. 37. 51,63	T.
	20 Ceti	56,9	10,5	23,7	37,3	51,0	4,2	17,6	0. 44. 37,32				37,59			0. 45. 26,22	T.
	Polaris. . . . .	....	....	38,0	27,5	13,7	....	36,0	1. 5. 26,71				18,74				T.
	(m) Aldebaran. . . . .	....	8,9	22,6	37,1	51,1	4,8	18,7	4. 26. 36,87				37,05	48,93			T.
Dec. 3	(g) ε Bootis.	52,1	7,2	22,4	37,6	52,9	8,0	....	14. 37. 37,62				37,82	51,17	1,60	14. 38. 28,95	T.
	(b) α Coronæ	46,1	1,2	16,0	31,6	46,7	1,7	16,8	15. 27. 31,44				31,64	51,19		15. 28. 22,83	T.
Dec. 4	⊙ 1 L.	19,1	33,6	48,2	2,9	17,6	32,1	46,6	16. 39. 2,87				3,23			16. 39. 54,50	T.
	⊙ 2 L.	39,7	54,7	8,9	23,7	38,4	52,7	7,4	16. 41. 23,64				24,00			16. 42. 15,27	T.
	(b)(n) α Ophiuchi. . . .	....	....	56,2	10,1	23,8	37,6	51,2	17. 27. 9,99				10,16	51,31		17. 28. 1,48	T.
Dec. 7	(o) ε Bootis.	45,3	0,6	15,7	31,2	46,2	1,5	16,6	14. 37. 31,01		+1,4	+3,9	31,19	57,88	1,51	14. 38. 28,93	T.
	α Coronæ.	39,7	54,6	9,6	24,9	40,2	55,2	10,5	15. 27. 24,96				25,15	57,74		15. 28. 22,94	T.
Dec. 8	(n)(p) ⊙ 1 L.	39,4	54,2	8,7	23,4	38,3	52,8	7,6	16. 56. 23,48				23,82			16. 57. 21,71	T.
	⊙ 2 L.	1,2	15,7	30,4	45,1	59,9	14,2	28,8	16. 58. 45,04				45,38			16. 59. 43,27	T.
	α Aquarii . . . . .	....	43,7	57,2	10,3	24,4	37,8	51,2	21. 57. 10,71				10,96	58,25		21. 58. 9,16	T.
	(q) Neptune.	59,0	....	....	....	53,2	6,6	20,5	22. 33. 39,56				39,84			22. 34. 38,08	T.
	(g) β Ceti.	27,3	41,7	55,6	10,2	24,5	38,7	52,8	0. 35. 10,11				10,44	58,30		0. 36. 8,81	T.
	α Arietis.	7,7	22,4	36,7	51,6	6,2	20,7	35,4	1. 57. 51,53				51,74	58,40		1. 58. 50,19	T.
	(g) Aldebaran. . . . .	....	....	....	27,3	41,6	55,2	9,3	4. 26. 27,30				27,47	58,57		4. 27. 26,08	T.
	(g) α Orionis . . . . .	....	43,2	....	11,2	25,2	38,8	52,7	4. 43. 11,09				11,26			4. 44. 9,89	T.
	11 Orionis	26,6	40,2	54,1	8,4	22,3	36,1	50,1	4. 55. 8,26				8,43			4. 56. 7,07	T.
	Rigel.	46,3	59,6	13,2	27,1	40,6	54,2	7,6	5. 6. 26,94				27,22	58,61		5. 7. 25,87	T.
	(r) ⊙ 1 L.	40,4	55,4	9,8	24,7	39,7	54,4	9,1	5. 18. 24,78				24,98			5. 19. 23,64	T.
	⊙ 2 L.	59,0	13,5	28,2	43,2	57,8	12,6	27,3	5. 20. 43,08				43,28			5. 21. 41,95	T.
	α Orionis.	30,2	43,6	57,1	11,0	24,4	37,8	51,2	5. 46. 10,75				10,92	58,76		5. 47. 9,61	T.
Dec. 9	(s) ⊙ 2 L.	9,8	24,7	39,4	54,6	9,7	24,5	39,3	6. 19. 54,57				54,78		1,48	6. 20. 54,96	T.
	(t) Sirius.	55,3	9,2	23,1	37,3	51,6	5,4	19,3	6. 37. 37,32				37,64	60,20			T.
Dec. 10	ε Bootis. . . . .	....	56,6	11,2	26,8	42,1	57,2	....	14. 37. 26,78		+1,6		26,98	62,16	1,39	14. 38. 29,23	T.
	(u) α Coronæ. . . . .	....	....	5,2	20,6	35,5	50,8	5,9	15. 27. 20,47				20,68	62,27		15. 28. 22,97	T.
	(x) α Serpentis. . . . .	....	....	....	54,2	7,8	21,2	34,6	15. 35. 54,09				54,27	62,20		15. 36. 56,57	T.
Dec. 11	⊙ 1 L.	45,7	0,4	14,9	30,0	44,6	59,2	13,9	17. 9. 29,81				30,15			17. 10. 32,54	T.
	⊙ 2 L.	7,7	22,4	36,8	51,7	6,4	21,0	35,7	17. 11. 51,67				52,01			17. 12. 54,41	T.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, - 40', 337, - 26', 913, - 13', 618, + 0', 060, + 13', 573, + 26', 892, + 40', 344.

(a) Extremely faint. (b) Faint. (c) The noted times have been increased 10". (d) 'Another followed.' (e) 'The south-preceding of a coarsely double star.' (f) The counting 1" fast. (g) Cloud. (h) Scarcely visible. (i) Corrected by - 20". (j) The clock almost inaudible from noise. (k) Extremely faint from cloud. Wire III was set down 48,2. (l) Flaring, and sometimes nearly hid by cloud. (m) Great motion. (n) Temp. 47°. (o) Very bad definition. (p) Extremely faint: seen only at these wires. (q) Very ragged. (r) Steady, but faint from cloud. (s) Very faint, the sky being overcast. (t) The counting was 1" slow. (u) Not seen before, so faint from day-light.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.			Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.							
		s.	s.	s.	s.	s.	s.	s.		h.	m.	s.		s.	s.	h.	m.	s.	
Dec. 11	(a) δ Ursæ Minoris..	31,0	17,0	0,7	51,0	38,3	....	11,7	18. 18. 50,55	-1,8	+1,6	+3,9	47,87		1,39	18. 19. 50,33			T.
	β Lyræ.....	43,7	59,8	15,8	32,1	48,3	4,1	20,2	18. 43. 32,00				32,18	62,46		18. 44. 34,66			T.
	β Aquarii.....	0,7	14,1	27,6	41,3	54,8	8,2	21,8	21. 22. 41,21				41,18	62,85		21. 23. 43,82			T.
	Neptune.....	2,2	16,0	29,6	43,5	57,5	10,6	24,2	22. 33. 43,37				43,66			22. 34. 46,37			T.
	Iris.....	39,2	53,0	6,3	20,3	33,8	47,1	0,8	0. 5. 20,07				20,25			0. 6. 23,04			T.
	β Ceti.....	23,0	37,2	51,3	5,8	20,1	34,2	48,5	0. 35. 5,73				6,07	62,63		0. 36. 8,89			T.
	(b) Parthenope.....	....	....	....	....	....	46,8	0,2	1. 28. 19,85				20,07			1. 29. 22,94			T.
	(c) α Arietis.....	3,2	17,7	32,2	47,0	1,7	16,1	30,8	1. 57. 46,96				47,18	62,94		1. 58. 50,08			T.
	(d) H. C. 7266.....	45,4	59,7	13,8	28,6	43,2	57,5	11,6	3. 47. 28,55				28,76			3. 48. 31,77			T.
	H. C. 7362.....	22,8	37,2	51,6	6,1	20,6	34,8	49,2	3. 50. 6,04				6,25			3. 51. 9,26			T.
	H. C. 7434.....	44,6	59,2	13,8	28,8	43,2	57,3	11,6	3. 52. 28,36				28,58			3. 53. 31,59			T.
	H. C. 7580.....	56,8	11,7	26,2	41,7	56,3	11,2	26,0	3. 56. 41,41				41,63			3. 57. 44,65			T.
	H. C. 7712.....	38,3	52,9	7,3	22,5	37,2	51,6	6,5	4. 0. 22,33				22,56			4. 1. 25,58			T.
	Bessel iv. 65.....	35,7	49,2	3,2	17,3	31,2	45,0	58,9	4. 3. 17,22				17,40			4. 4. 20,42			T.
	(e) Bessel iv. 105.....	....	33,2	47,3	1,6	15,2	29,2	....	4. 5. 1,30				1,48			4. 6. 4,51			T.
	H. C. 8066.....	23,6	38,6	52,9	7,7	22,4	36,9	51,6	4. 10. 7,67				7,89			4. 11. 10,92			T.
	H. C. 8198.....	7,4	21,9	36,2	51,2	5,7	20,1	34,7	4. 13. 51,03				51,25			4. 14. 54,28			T.
	71 Tauri.....	10,0	24,0	37,7	52,0	5,7	19,7	33,7	4. 16. 51,83				52,01			4. 17. 55,05			T.
	Aldebaran.....	40,6	54,6	8,6	22,7	36,9	50,7	4,7	4. 26. 22,68				22,86	63,20		4. 27. 25,91			T.
	(c) Rigel.....	41,7	55,3	8,7	22,3	36,1	49,6	3,2	5. 6. 22,41				22,70	63,16		5. 7. 25,79			T.
	β Tauri.....	7,3	22,6	37,7	53,3	8,6	23,7	39,0	5. 15. 53,17				53,36	63,11		5. 16. 56,45			T.
	α Orionis.....	25,7	39,2	52,6	6,5	20,0	33,2	47,0	5. 46. 6,32				6,50	63,23		5. 47. 9,62			T.
	δ Ursæ Min. SP.	....	....	55,0	41,7	32,0	16,7	4,0	6. 18. 43,04				47,03			6. 19. 50,19			T.
	H. C. 12896.....	20,9	35,1	49,2	3,5	17,7	32,1	46,2	6. 34. 3,53				3,74			6. 35. 6,91			T.
	(f) Sirius.....	52,4	6,4	20,3	34,5	48,6	2,7	16,7	6. 37. 34,51				34,84	63,04		6. 38. 38,01			T.
	ϵ Bootis.....	40,1	55,1	9,8	25,3	40,7	55,8	11,0	14. 37. 25,40				25,60	63,57	1,34	14. 38. 29,21			T.
	α Coronæ.....	33,7	48,8	3,8	19,0	31,5	49,2	4,5	15. 27. 19,07				19,28	63,69		15. 28. 22,93			T.
	α Serpentis.....	....	....	38,8	....	6,2	19,7	33,2	15. 35. 52,56				52,74	63,75		15. 36. 56,40			T.
Dec. 12	\odot 1 L.....	8,9	23,4	38,0	52,6	7,7	22,1	36,8	17. 13. 52,78				53,12			17. 14. 56,87			T.
	\odot 2 L.....	30,7	45,2	59,8	14,9	29,4	44,0	58,8	17. 16. 14,68				15,02			17. 17. 18,77			T.
	α Pegasi.....	36,5	50,2	4,1	18,2	32,1	45,8	59,7	22. 56. 18,09				18,27	63,98		22. 57. 22,34			T.
Dec. 17	(g) Neptune.....	....	....	....	....	7,2	21,0	34,7	22. 33. 53,68				53,92		1,59	22. 35. 6,44			T.
	α Pegasi.....	27,7	41,6	55,3	9,4	23,6	37,4	51,2	22. 56. 9,46				9,64	72,54					T.
	Bessel xxii. 1292.....	....	41,6	55,0	9,0	22,8	36,7	....	23. 0. 9,02				9,32			23. 1. 21,87			T.
	Bessel xxiii. 60.....	18,2	32,0	44,6	....	11,9	25,4	39,0	23. 2. 58,53				58,82			23. 4. 11,37			T.
Dec. 19	Iris.....	52,8	6,2	19,8	33,6	47,0	0,7	14,0	0. 13. 33,44				33,62			0. 14. 46,25			T.
	(h) Neptune.....	17,2	....	....	....	25,0	38,7	22. 33. 57,87					58,16		1,54	22. 35. 13,78			T.
Dec. 20	α Pegasi.....	24,8	38,7	52,2	6,2	20,3	34,2	48,0	22. 56. 6,34				6,52	75,64					T.
	β Ceti.....	8,2	22,7	36,8	50,9	5,2	19,5	33,6	0. 34. 50,98		+1,0		51,31	77,23	1,50				T.
Dec. 22	(i) α Coronæ.....	16,8	31,9	46,8	2,2	17,3	32,6	47,5	15. 27. 2,15				2,32	80,91	1,44	15. 28. 23,26			T.
	(k) α Serpentis.....	....	....	21,8	35,7	49,1	2,6	16,3	15. 35. 35,56				35,71	81,02		15. 36. 56,66			T.
Dec. 23	(l) \odot 1 L.....	37,6	52,3	7,0	22,1	36,5	51,2	6,0	18. 2. 21,81				22,14			18. 3. 43,23			T.
	\odot 2 L.....	0,4	14,9	29,5	44,3	59,4	13,8	28,6	18. 4. 44,41				44,74			18. 6. 5,83			T.
	α Andromedæ...	36,3	51,7	6,7	22,2	37,8	52,9	8,2	23. 59. 22,25				22,40	81,39		0. 0. 43,85			T.
	Iris.....	....	....	....	30,0	43,7	57,2	11,1	0. 22. 30,09				30,24			0. 23. 51,71			T.
Dec. 26	β Ceti.....	59,7	13,8	27,9	42,4	56,6	10,8	25,1	0. 34. 42,33				42,66	85,86	1,54	0. 36. 8,60			T.
	Bessel ii. 451.....	10,8	24,6	38,1	52,1	6,0	19,8	33,4	2. 25. 52,11				52,25			2. 27. 18,31			T.
	H. C. 4881.....	10,0	24,1	38,2	52,9	7,0	21,0	35,3	2. 28. 52,64				52,81			2. 30. 18,87			T.
	Bessel ii. 812.....	43,0	56,6	10,0	24,0	37,5	51,3	5,1	2. 45. 23,93				24,07			2. 46. 50,15			T.
	H. C. 5456.....	28,3	42,3	56,2	10,8	24,9	38,8	52,9	2. 48. 10,60				10,76			2. 49. 36,84			T.
	Bessel ii. 911.....	56,7	10,2	23,7	37,8	51,2	4,8	18,7	2. 50. 37,59				37,72			2. 52. 3,80			T.
	α Ceti.....	26,0	39,4	52,7	6,6	20,1	33,5	46,8	2. 53. 6,44				6,62	86,05		2. 54. 32,71			T.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40",337, -26",913, -13",618, +0",060, +13",573, +26",892, +40",344.

(a) Very steady. (b) The other wires lost from the faintness of the object. (c) Diffused. (d) 'The brighter and north-following of two.'
The other is H. C. 7263. (e) 'The north-following of two equal.' The other is Bessel iv. 103. (f) Flaring exceedingly. Temp. 40°. (g) Observed hurriedly. (h) Extremely faint. (i) Wire II set down 30,9. (k) Wire III set down 20,8. (l) Very unsteady. Several large spots noticed.

Month and Day.	NAME OF OBJECT.	Seconds of transit over the seven wires.							Concluded transit over the mean of the seven wires.	Correction of			Seconds of Meridian Transit.	Clock apparently Slow.	Adopted losing Rate.	Apparent R.A. from the Observation.	Observer.
		I	II	III	IV	V	VI	VII		Collimation Error.	Level Error.	Azimuth Error.					
		s.	s.	s.	s.	s.	s.	s.		"	"	"		s.	s.	s.	
Dec. 26	Bessel II. 995....	....	....	....	0,6	14,6	28,6	42,3	2.55. 0,59	-1,8	+1,0	+3,9	0,73		1,54	2.56. 26,82	T.
	(a) H. C. 5771.	40,2	54,2	8,2	22,7	36,2	50,2	4,7	2.58. 22,34				22,49			2.59. 48,58	T.
	H. C. 5821. ....	....	25,9	39,7	54,2	8,2	22,2	....	2.59. 54,04				54,19			3. 1. 20,28	T.
	(b) Bessel III. 119...	59,6	13,1	26,9	41,0	55,0	8,7	22,7	3. 5. 41,00				41,15			3. 7. 7,25	T.
	Bessel III. 173...	4,8	18,6	32,3	46,7	0,7	14,2	28,2	3. 8. 46,50				46,64			3. 10. 12,74	T.
	(c) Bessel III. 244...	29,2	43,1	56,5	10,4	24,2	37,9	51,7	3. 12. 10,42				10,56			3. 13. 36,67	T.
	81 Tauri.....	4,7	18,3	32,3	46,5	0,4	14,2	28,2	4. 20. 46,37				46,51			4. 22. 12,69	T.
	B.A.C. 1406.....	2,2	16,1	29,8	44,1	58,2	12,3	26,1	4. 23. 44,11				44,26			4. 25. 10,44	T.
	(d) Aldebaran.....	17,8	31,8	45,7	0,0	14,0	27,8	41,7	4. 25. 59,82				59,97	86,15		4. 27. 26,15	T.
	(e)(f) Rigel.....	18,6	32,2	45,6	59,6	13,2	26,6	40,2	5. 5. 59,43				59,70	86,25		5. 7. 25,93	T.
	(e) β Tauri.....	44,5	59,6	14,9	30,3	45,3	0,8	16,2	5. 15. 30,22				30,37	86,25		5. 16. 56,61	T.
	(g) α Orionis.....	....	16,5	29,7	43,2	57,0	10,2	....	5. 45. 43,32				43,47	86,43		5. 47. 9,74	T.
Dec. 29	) 1 L.....	30,6	44,2	58,1	12,1	26,1	39,4	53,3	0. 0. 11,97				12,24		1,59	0. 1. 42,89	T.
	(h) α Ceti.....	21,2	34,8	48,1	1,7	15,2	28,7	42,1	2. 53. 1,68				1,86	90,78		2. 54. 32,70	T.
	(i) Rigel.....	....	....	....	....	8,3	22,0	35,4	5. 5. 54,67				54,94	91,01		5. 7. 25,93	T.
	(k) α Orionis.....	....	....	....	....	52,5	5,7	19,3	5. 45. 38,69				38,84	91,08		5. 47. 9,87	T.
	(d) Sirius.....	24,7	38,8	52,3	6,7	20,9	34,9	48,9	6. 37. 6,74				7,05	91,08		6. 38. 88,14	T.

ILLUMINATION WEST. INTERVALS for an Equatorial star from wires I, II, III, IV, V, VI, VII, to the mean of the seven wires, -40',337, -26',913, -13',618, +0',060, +13',573, +26',892, +40',344.

(a) 'Another of Mag. 8.9 of the same R.A. and less N.P.D. by about 4'.' (b) The counting was 1st fast: correction applied accordingly. (c) Very faint.
 (d) Flaring. (e) Bad definition. (f) Very irregular motion. (g) The illumination failing. (h) Faint from cloud. (i) The first four wires lost by the noise of a carriage passing. (k) The observer was delayed at the Northumberland Dome.

MEAN RIGHT ASCENSIONS, JANUARY 1, 1851,

OF THE

FUNDAMENTAL STARS

OBSERVED IN THE YEAR 1851,

AS DEDUCED FROM EACH DAY'S OBSERVATION.

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1851.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1851.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1851.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1851.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
<i>α Andromedæ.</i>			<i>α Arietis continued.</i>			<i>Rigel continued.</i>			<i>Sirius continued.</i>		
Feb. 4	+1,33	0. 0. 41,74	Sept. 22	-2,46	1. 58. 47,21	Feb. 21	+0,02	5. 7. 22,77	Feb. 24	-0,46	6. 38. 34,97
8	+1,37	41,83	Oct. 8	-2,86	47,08	22	+0,04	22,74	Mar. 11	-0,20	34,96
17	+1,45	41,65	10	-2,88	47,00	May 10	+1,13	22,71	14	-0,14	34,98
Mar. 4	+1,52	41,74	24	-3,03	47,04	15	+1,14	22,74	18	-0,07	34,80
20	+1,50	41,78	Nov. 1	-3,08	47,15	June 20	+0,89	22,70	May 16	+0,89	35,05
Aug. 30	-2,53	41,73	3	-3,09	46,93	27	+0,78	22,80	Aug. 3	+0,40	35,01
Sept 11	-2,69	41,66	14	-3,12	47,02	Aug. 20	-0,50	22,79	12	+0,21	34,89
19	-2,76	41,59	15	-3,13	47,09	Nov. 10	-2,65	22,87	14	+0,17	34,93
22	-2,77	41,48	18	-3,13	47,05	20	-2,83	22,73	20	+0,03	35,07
Oct. 2	-2,80	41,56	20	-3,13	47,11	Dec. 8	-3,08	22,79	Dec. 11	-2,94	35,07
7	-2,81	41,68	22	-3,13	46,96	11	-3,11	22,68	29	-3,19	34,95
8	-2,81	41,76	24	-3,12	47,09	26	-3,20	22,73			
Nov. 1	-2,71	41,72	25	-3,12	47,08	29	-3,20	22,73			
4	-2,68	41,63	Dec. 8	-3,07	47,12						
24	-2,48	41,62	11	-3,05	47,03						
25	-2,46	41,84									
Dec. 23	-2,08	41,77									
<i>β Ceti.</i>			<i>α Ceti.</i>			<i>β Tauri.</i>			<i>Castor.</i>		
Oct. 24	-2,57	0. 36. 6,58	Jan. 18	+0,25	2. 54. 29,82	Jan. 8	-0,47	5. 16. 52,66	Feb. 3	-0,71	7. 25. 5,18
Nov. 3	-2,54	6,56	Feb. 1	+0,45	29,78	18	-0,43	52,66	4	-0,71	5,20
22	-2,40	6,57	4	+0,49	29,51	22	-0,41	52,74	6	-0,70	5,22
Dec. 8	-2,25	6,56	8	+0,56	29,66	27	-0,37	52,62	11	-0,68	5,25
11	-2,21	6,68	Nov. 14	-2,93	29,76	Feb. 1	-0,32	52,55	15	-0,65	5,19
26	-2,03	6,57	15	-2,94	29,76	4	-0,28	52,51	22	-0,58	5,19
			18	-2,95	29,80	11	-0,18	52,64	Mar. 22	-0,14	5,22
			20	-2,96	29,65	17	-0,08	52,59	Aug. 14	+0,14	5,18
			Dec. 26	-2,93	29,78	21	-0,01	52,63			
			29	-2,90	29,80	22	+0,01	52,54			
						Mar. 11	+0,34	52,69			
						Nov. 10	-3,25	52,61			
						Dec. 11	-3,86	52,59			
						26	-4,01	52,60			
<i>Polaris.</i>			<i>Aldebaran.</i>			<i>α Orionis.</i>			<i>Procyon.</i>		
Mar. 13	+34,22	1. 5. 21,80	Jan. 8	-0,28	4. 27. 22,65	Jan. 18	-0,48	5. 47. 6,46	Feb. 3	-0,68	7. 31. 30,12
13	+34,44	20,36	9	-0,28	22,56	22	-0,46	6,30	4	-0,68	30,17
14	+34,68	19,25	22	-0,18	22,62	Feb. 1	-0,40	6,42	6	-0,68	30,07
20	+36,68	18,86	24	-0,15	22,54	4	-0,37	6,38	8	-0,67	30,14
20	+36,75	18,88	27	-0,12	22,49	6	-0,35	6,39	11	-0,66	30,10
Apr. 18	+36,93	17,28	Feb. 1	-0,06	22,55	8	-0,33	6,38	15	-0,63	30,11
19	+36,79	17,21	4	-0,01	22,58	11	-0,30	6,29	17	-0,62	30,05
23	+35,76	17,95	8	+0,04	22,50	15	-0,24	6,31	21	-0,59	30,18
27	+34,82	20,21	11	+0,09	22,53	21	-0,15	6,44	22	-0,58	30,04
28	+34,65	20,16	15	+0,16	22,55	22	-0,14	6,42	Mar. 1	-0,50	30,01
May 6	+30,96	19,49	21	+0,26	22,64	Mar. 4	+0,02	6,40	Apr. 5	+0,05	30,12
8	+30,19	19,46	Apr. 19	+1,12	22,51	13	+0,18	6,44	May 10	+0,58	30,12
8	+30,02	19,54	Aug. 20	-0,93	22,43	May 10	+0,99	6,37	16	+0,64	30,01
14	+27,19	18,76	Nov. 10	-3,08	22,50	16	+1,01	6,34	July 2	+0,73	30,07
14	+26,86	18,41	15	-3,17	22,55	Aug. 3	0,00	6,33	Aug. 3	+0,35	30,07
15	+26,53	17,83	18	-3,21	22,52	20	-0,44	6,37	7	+0,28	29,99
Sept. 10	-56,33	17,96	24	-3,30	22,56	Dec. 8	-3,29	6,32	14	+0,16	30,09
11	-56,68	(15,02)	Dec. 8	-3,46	22,62	11	-3,33	6,29	18	+0,08	30,09
12	-57,07	17,56	11	-3,48	22,43	26	-3,50	6,24	19	+0,06	29,97
12	-57,27	19,35	26	-3,54	22,61	29	-3,52	6,35	20	+0,04	30,02
13	-57,48	21,14							24	-0,05	30,09
Oct. 6	-63,31	21,48									
8	-63,35	20,72									
8	-63,35	20,58									
15	-64,05	20,17									
16	-64,04	20,30									
16	-64,02	20,81									
Nov. 13	-57,95	18,59									
14	-57,71	18,59									
<i>α Arietis.</i>			<i>Rigel.</i>			<i>Sirius.</i>			<i>Pollux.</i>		
Jan. 9	+0,36	1. 58. 47,04	Jan. 8	-0,46	5. 7. 22,65	Jan. 18	-0,78	6. 38. 34,95	Jan. 23	-0,67	7. 36. (11,83)
23	+0,56	47,00	9	-0,45	22,69	23	-0,77	34,91	27	-0,68	11,56
Feb. 17	+0,96	47,07	18	-0,41	22,81	27	-0,76	34,89	Feb. 3	-0,69	11,48
			23	-0,37	22,79	Feb. 3	-0,71	34,86	4	-0,69	11,64
			Feb. 1	-0,28	22,80	21	-0,50	35,00	8	-0,68	11,58
			4	-0,24	22,76	22	-0,49	34,93	11	-0,67	11,56
			8	-0,19	22,72				15	-0,65	11,52
			11	-0,14	22,77				17	-0,64	11,59
			15	-0,08	22,81				21	-0,61	11,47
									Mar. 1	-0,52	11,50
									20	-0,22	11,54
									Apr. 5	+0,09	11,40
									May 16	+0,75	11,49
									Aug. 3	+0,40	11,47

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1851.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1851.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1851.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1851.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
Pollux continued.			Regulus continued.			β Corvi continued.			ϵ Bootis continued.		
Aug. 7	+ 0,33	7.36.11,54	Feb. 24	- 0,84	10.0.25,89	May 9	- 1,22	12.26.34,20	Apr. 28	- 1,33	14.38.28,79
19	+ 0,07	11,49	Mar. 6	- 0,85	26,07	13	- 1,19	34,30	May 1	- 1,35	28,67
24	- 0,05	11,46	14	- 0,83	26,07	14	- 1,19	34,24	2	- 1,35	28,71
ϵ Hydræ.			18	- 0,81	25,99	17	- 1,16	34,22	3	- 1,36	28,76
Jan. 9	- 0,45	8.38.53,05	20	- 0,80	25,99	19	- 1,14	34,24	9	- 1,39	28,83
22	- 0,64	53,03	26	- 0,75	25,96	Spica.			13	- 1,40	28,67
24	- 0,67	53,03	Apr. 11	- 0,59	25,95	Mar. 13	- 0,90	13.17.20,93	17	- 1,41	28,74
27	- 0,69	53,05	12	- 0,58	25,93	18	- 0,97	20,90	22	- 1,42	28,73
28	- 0,70	52,95	May 8	- 0,24	25,83	15	- 1,24	20,92	23	- 1,42	28,72
Feb. 3	- 0,75	52,97	July 2	+ 0,31	25,93	Apr. 5	- 1,17	21,01	31	- 1,41	28,82
5	- 0,75	53,02	Sept. 12	+ 0,01	26,00	12	- 1,22	21,00	June 16	- 1,32	28,84
6	- 0,75	52,99	Nov. 2	- 1,12	25,99	15	- 1,24	20,92	17	- 1,31	28,78
8	- 0,76	52,99	δ Leonis.			28	- 1,27	21,02	25	- 1,24	28,76
11	- 0,77	52,93	Feb. 21	- 0,79	11.6.10,60	29	- 1,28	20,93	26	- 1,23	28,91
14	- 0,77	52,99	24	- 0,82	10,81	May 1	- 1,28	20,96	Aug. 21	- 0,41	28,74
15	- 0,77	53,03	Mar. 11	- 0,93	10,78	8	- 1,27	20,91	Sept. 10	- 0,07	28,75
21	- 0,76	53,01	20	- 0,95	10,78	9	- 1,27	20,97	17	+ 0,03	28,81
22	- 0,76	53,10	28	- 0,93	10,73	13	- 1,26	21,01	Nov. 24	+ 0,01	28,72
Mar. 4	- 0,70	52,90	Apr. 5	- 0,90	10,72	14	- 1,26	21,06	Dec. 3	- 0,17	28,78
6	- 0,68	52,81	12	- 0,85	10,53	15	- 1,25	20,93	7	- 0,25	28,68
11	- 0,64	53,04	17	- 0,81	10,72	19	- 1,25	21,00	10	- 0,32	28,91
14	- 0,61	52,92	19	- 0,80	10,68	23	- 1,23	20,92	11	- 0,35	28,86
22	- 0,51	52,93	May 8	- 0,59	10,65	31	- 1,19	20,97	α^s Libræ.		
28	- 0,43	52,94	9	- 0,57	10,77	June 16	- 1,07	20,93	Apr. 22	- 1,33	14.42.38,71
Apr. 5	- 0,31	52,93	13	- 0,53	10,62	Aug. 5	- 0,53	20,91	28	- 1,40	38,64
α Hydræ.			14	- 0,51	10,68	13	- 0,44	20,98	May 1	- 1,43	38,64
Jan. 18	- 0,65	9.20.15,94	β Leonis.			19	- 0,37	21,03	2	- 1,44	38,58
23	- 0,72	16,00	Mar. 18	- 0,95	11.41.27,47	25	- 0,21	21,11	3	- 1,44	38,59
24	- 0,74	15,96	26	- 0,97	27,49	Sept. 11	- 0,17	20,95	8	- 1,48	38,77
28	- 0,78	15,89	28	- 0,97	27,53	13	- 0,16	21,03	9	- 1,49	38,46
Feb. 3	- 0,84	16,01	Apr. 5	- 0,96	27,52	Oct. 31	- 0,35	21,02	13	- 1,51	38,69
5	- 0,86	15,90	11	- 0,95	27,53	Arcturus.			17	- 1,53	38,65
6	- 0,87	15,94	15	- 0,93	27,46	Apr. 15	- 1,15	14.8.52,05	19	- 1,54	38,69
8	- 0,88	15,96	17	- 0,92	27,36	17	- 1,16	52,16	22	- 1,55	38,72
11	- 0,90	15,93	19	- 0,91	27,48	19	- 1,18	52,13	23	- 1,55	38,68
14	- 0,91	15,96	28	- 0,84	27,37	28	- 1,24	52,14	31	- 1,57	38,62
15	- 0,91	15,99	29	- 0,84	27,44	29	- 1,24	52,03	June 16	- 1,54	38,61
22	- 0,92	16,00	May 3	- 0,80	27,45	May 1	- 1,25	52,06	17	- 1,54	38,70
Mar. 1	- 0,90	15,97	8	- 0,76	27,36	2	- 1,25	52,12	25	- 1,50	38,70
4	- 0,89	16,02	9	- 0,75	27,53	3	- 1,26	52,10	26	- 1,49	38,67
6	- 0,88	16,02	13	- 0,71	27,34	8	- 1,27	52,21	α Coronæ.		
11	- 0,85	15,78	14	- 0,70	27,33	17	- 1,27	52,00	May 13	- 1,47	15.28.22,82
14	- 0,82	15,87	July 4	- 0,15	27,31	19	- 1,27	51,99	14	- 1,48	22,82
18	- 0,79	16,06	Aug. 19	+ 0,18	27,34	21	- 1,27	52,04	15	- 1,49	22,81
20	- 0,77	15,90	β Corvi.			June 2	- 1,23	52,08	19	- 1,52	22,76
22	- 0,75	15,97	Mar. 13	- 1,15	12.26.34,16	4	- 1,22	52,02	21	- 1,53	22,78
26	- 0,70	15,92	18	- 1,20	34,17	19	- 1,12	52,01	28	- 1,55	22,89
Apr. 5	- 0,58	15,92	20	- 1,22	34,07	Aug. 7	- 0,51	52,02	June 2	- 1,56	22,79
11	- 0,50	15,89	26	- 1,26	34,20	19	- 0,33	52,00	4	- 1,56	22,82
12	- 0,48	15,98	Apr. 5	- 1,30	34,23	21	- 0,30	51,91	16	- 1,54	22,86
Regulus.			12	- 1,31	34,33	25	- 0,25	52,03	17	- 1,53	22,81
Feb. 5	- 0,69	10.0.25,97	15	- 1,31	34,15	Sept. 13	0,00	51,91	19	- 1,52	22,78
6	- 0,70	25,87	19	- 1,30	34,21	22	+ 0,08	51,99	27	- 1,48	22,82
14	- 0,78	25,94	22	- 1,30	34,24	Oct. 31	+ 0,12	51,74	Aug. 5	- 0,99	22,84
15	- 0,79	25,90	28	- 1,28	34,05	Nov. 13	- 0,02	52,03	7	- 0,95	22,81
21	- 0,83	25,85	29	- 1,28	34,19	19	- 0,12	52,08	11	- 0,88	22,88
22	- 0,84	25,93	May 8	- 1,23	34,15	24	- 0,21	51,99	28	- 0,57	22,81
						ϵ Bootis.			Dec. 3	+ 0,01	22,84
						Apr. 19	- 1,25	14.38.28,80	7	- 0,05	22,89
						22	- 1,28	28,90	10	- 0,11	22,86
									11	- 0,13	22,80
									22	- 0,39	22,87

Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1851.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1851.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1851.	Day of Observa- tion.	Correction to Mean R.A.	Mean R.A. Jan. 1, 1851.
	s.	h. m. s.		s.	h. m. s.		s.	h. m. s.		s.	h. m. s.
α Serpentis.			α Ophiuchi.			γ Aquilæ continued.			β Aquarii.		
Apr. 17	-1,07	15.36.55,92	Jan. 17	+1,74	17.28.1,16	Aug. 22	-2,10	19.39.10,58	Aug. 11	-2,28	21.23.42,82
May 19	-1,47	55,82	June 19	-1,81	1,22	28	-2,04	10,63	14	-2,31	42,79
21	-1,49	55,90	24	-1,84	1,37	Sept. 9	-1,92	10,68	18	-2,33	42,70
22	-1,50	55,86	27	-1,85	1,33	11	-1,88	10,69	21	-2,34	42,81
28	-1,53	55,94	July 29	-1,80	1,22	17	-1,80	10,52	30	-2,36	42,82
June 4	-1,56	56,04	Aug. 7	-1,71	1,22	Oct. 8	-1,44	10,64	Sept. 3	-2,35	42,85
16	-1,57	55,92	18	-1,57	1,23	α Aquilæ.			9	-2,33	42,79
27	-1,55	55,84	28	-1,42	1,19	Jan. 9	+2,02	19.43.30,87	12	-2,32	42,78
July 5	-1,51	55,90	Sept. 3	-1,32	1,11	17	+1,95	30,72	15	-2,30	42,82
Aug. 7	-1,17	55,94	9	-1,21	1,18	21	+1,91	30,65	17	-2,29	42,81
8	-1,15	55,93	Nov. 25	-0,22	1,20	23	+1,88	30,84	20	-2,26	42,82
11	-1,11	55,92	Dec. 4	-0,25	1,23	27	+1,84	30,84	Oct. 3	-2,13	42,79
28	-0,85	55,88	μ^1 Sagittarii.			27	+1,84	30,84	8	-2,07	42,74
Sept. 3	-0,76	55,83	July 4	-2,16	18.4.51,36	Feb. 3	+1,72	30,86	Nov. 1	-1,73	42,93
Dec. 10	-0,54	56,03	Aug. 7	-2,16	51,22	5	+1,69	30,85	4	-1,69	42,86
11	-0,56	55,84	21	-2,02	51,30	June 19	-1,70	30,80	10	-1,61	42,74
22	-0,80	55,86	28	-1,92	51,33	28	-1,86	30,76	Dec. 11	-1,23	42,59
δ Ophiuchi.			Sept. 3	-1,83	51,25	July 5	-1,97	30,73	α Aquarii.		
May 19	-1,51	16.6.32,48	9	-1,73	51,21	10	-2,04	30,75	Aug. 30	-2,37	21.58.(7,66)
21	-1,53	32,58	12	-1,68	51,30	21	-2,13	30,71	Sept. 3	-2,38	7,85
22	-1,54	32,54	δ Ursæ Minoris.			29	-2,18	30,78	10	-2,38	7,85
28	-1,59	32,46	Dec. 11	+33,44	18.20.23,77	Aug. 20	-2,15	30,84	11	-2,37	7,98
31	-1,62	32,48	11	+38,54	23,73	22	-2,14	30,78	12	-2,37	7,77
June 19	-1,72	32,56	β Lyrae.			23	-2,13	30,87	15	-2,37	7,90
21	-1,72	32,46	July 29	-2,12	18.44.34,75	28	-2,08	30,78	19	-2,35	7,77
24	-1,72	32,45	Aug. 20	-1,88	34,74	11	-1,93	30,80	22	-2,33	7,97
July 2	-1,70	32,51	Sept. 10	-1,50	34,77	13	-1,90	30,77	Oct. 3	-2,24	7,81
21	-1,59	32,59	11	-1,48	34,72	17	-1,84	30,95	7	-2,21	7,73
Aug. 5	-1,44	32,53	12	-1,46	34,79	19	-1,81	30,87	8	-2,20	7,75
11	-1,36	32,48	13	-1,44	34,73	20	-1,80	30,85	10	-2,18	7,90
15	-1,30	32,53	15	-1,39	34,68	Oct. 8	-1,50	30,79	Nov. 3	-1,87	7,90
23	-1,18	32,54	17	-1,34	34,79	14	-1,40	30,79	24	-1,59	7,88
Antares.			20	-1,27	34,73	Nov. 18	-0,86	30,83	Dec. 8	-1,42	7,74
May 15	-1,68	16.20.16,76	22	-1,23	34,57	20	-0,84	30,81	α Pegasi.		
June 2	-1,91	16,75	Dec. 11	+0,14	34,80	β Aquilæ.			Jan. 22	+1,49	22.57.20,57
4	-1,93	16,66	ζ Aquilæ.			July 10	-2,02	19.47.59,76	28	+1,52	20,56
17	-2,02	16,75	June 25	-1,87	18.58.33,75	Aug. 20	-2,15	59,67	Aug. 14	-2,25	20,44
19	-2,03	16,77	28	-1,91	33,80	22	-2,14	59,62	18	-2,30	20,62
21	-2,03	16,89	July 4	-1,98	33,69	28	-2,09	59,60	30	-2,43	20,50
26	-2,04	16,66	5	-1,99	33,80	Sept. 3	-2,04	59,77	Sept. 3	-2,46	20,56
July 4	-2,03	16,83	29	-2,09	33,83	9	-1,97	59,72	9	-2,49	20,39
Aug. 7	-1,75	16,80	Aug. 22	-1,94	33,71	10	-1,95	59,75	10	-2,49	20,48
11	-1,69	16,75	Sept. 11	-1,66	33,79	11	-1,94	59,70	12	-2,50	20,50
15	-1,63	16,80	12	-1,64	33,76	13	-1,92	59,67	15	-2,50	20,53
19	-1,57	16,78	13	-1,62	33,76	15	-1,89	59,62	19	-2,51	20,58
21	-1,53	16,87	γ Aquilæ.			17	-1,86	59,54	20	-2,51	20,38
23	-1,50	16,72	Jan. 17	+1,94	19.39.10,48	20	-1,82	59,76	22	-2,50	20,65
Oct. 8	-0,71	16,72	Feb. 5	+1,67	10,61	Oct. 7	-1,54	59,67	Oct. 2	-2,47	20,60
α Herculis.			June 24	-1,79	10,50	8	-1,52	59,65	3	-2,47	20,51
May 13	-1,34	17.7.51,45	25	-1,81	10,55	14	-1,42	59,66	7	-2,45	20,60
14	-1,36	51,40	28	-1,86	10,52	α^2 Capricorni.			10	-2,43	20,52
15	-1,38	51,41	July 5	-1,96	10,61	Aug. 13	-2,33	20.9.47,04	14	-2,40	20,51
21	-1,48	51,36	10	-2,03	10,52	14	-2,33	47,16	24	-2,32	20,48
June 16	-1,76	51,31	21	-2,12	10,59	22	-2,32	47,14	Nov. 3	-2,20	20,46
26	-1,81	51,30	Aug. 20	-2,11	10,60	Sept. 3	-2,25	47,04	4	-2,19	20,54
Aug. 23	-1,37	51,29	γ Aquilæ.			9	-2,19	47,17	22	-1,96	20,56
Sept. 3	-1,18	51,23	Jan. 17	+1,94	19.39.10,48	11	-2,17	47,15	24	-1,94	20,54
			Feb. 5	+1,67	10,61	13	-2,15	47,09	Dec. 12	-1,72	20,62
			June 24	-1,79	10,50	Oct. 2	-1,80	47,21			
			25	-1,81	10,55						
			28	-1,86	10,52						
			July 5	-1,96	10,61						
			10	-2,03	10,52						
			21	-2,12	10,59						
			Aug. 20	-2,11	10,60						

MEAN RIGHT ASCENSIONS, JAN. 1, 1851,

OF STARS

OBSERVED IN THE YEAR 1851,

AS DEDUCED FROM EACH DAY'S OBSERVATION;

AND

A CATALOGUE

OF

CONCLUDED MEAN RIGHT ASCENSIONS,

JANUARY 1, 1851;

WITH THE ANNUAL VARIATIONS.

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of R.A. Jan. 1, 1851, as observed.	Approximate N.P.D. Jan. 1, 1851.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1851.	Annual Variation.	Notes.
				s.	s.	o /		h. m. s.	s.	
1	α ANDROMEDÆ					61.44	17	0. 0. 41.69	3,084	
2	* (Mag. 9).....	Oct. 7		-2.57		84. 8	1	0. 3. 53.03	3,073	Nos. 2 and 3. The magnitudes were noted in Transit observations of these stars on Nov. 19, 1856.
3	* (Mag. 7).....	Sept. 11		-2.42	12.92	82. 1	2	0. 22. 12.98	3,089	
4	12 Ceti	12		-2.44	13.03					
5	12 Ceti	Jan. 9		+1.05	26.19	94.47	2	0. 22. 26.16	3,060	
6	13 Ceti	Nov. 4		-2.51	26.13					
7	β CETI	4		-2.52		94.25	1	0. 27. 34.88	3,058	
8	B.A.C. 205.....	Oct. 8		-2.55	49.14	108.48	6	0. 36. 6.59	3,013	
9	20 Ceti	Dec. 2		-2.37	49.26	95.27	2	0. 37. 49.20	3,050	
10	20 Ceti	Sept. 12		-2.34	23.78					
11	20 Ceti	Oct. 8		-2.57	23.79	91.57	3	0. 45. 23.79	3,062	
12	20 Ceti	Dec. 2		-2.41	23.81					
13	ϵ Piscium	Jan. 9		+0.79		82.55	1	0. 55. 12.92	3,110	No. 21. The accompanying star, Bessel i. 666, was considered to be of Mag. 8j.
14	ϵ Piscium	9		+0.78	42.03	85. 8	2	1. 0. 42.04	3,100	
15	20 Ceti	Sept. 12		-2.31	42.05					
16	POLARIS.....					1.29	28	1. 5. 19.38	17,710	
17	ν Piscium	Oct. 10		-2.63	40.87	85.16	2	1. 33. 40.90	3,115	
18	B.A.C. 524.....	Nov. 6		-2.78	40.93					
19	Bessel i. 667.....	26	7.8	-2.87		74.59	1	1. 34. 26.00	3,214	
20	\circ Piscium	24	8 $\frac{1}{4}$	-2.80		81.16	1	1. 36. 22.38	3,154	
21	\circ Piscium	6		-2.82	31.82	81.36	2	1. 37. 31.84	3,152	
22	Bessel i. 732.....	26	4.5	-2.79	31.86					
23	*.....	Jan. 9		+0.51		76.41	1	1. 40. 38.09	3,205	Nos. 25 and 26. Mistaken for Bessel i. 750 through an error in the working Catalogue. The N.P.D. was obtained by a Circle observation 1851, Nov. 25.
24	*.....	Nov. 24		-2.78	48.39	85.20	2	1. 41. 48.37	3,118	
25	Bessel i. 801.....	26	9	-2.77	48.35					
26	Bessel i. 801.....	24	8 $\frac{3}{4}$	-2.84	46.07	81. 9	2	1. 44. 46.06	3,163	
27	Bessel i. 801.....	26	9	-2.83	46.04					
28	Bessel i. 858.....	25	8.9	-2.87		78.56	1	1. 47. 38.38	3,189	
29	Bessel i. 896.....	24	8	-2.95	34.11	74.48	2	1. 50. 34.12	3,239	
30	Bessel i. 896.....	25	8 $\frac{1}{4}$	-2.95	34.12					
31	Bessel i. 909.....	26		-2.81		84.17	1	1. 51. 17.18	3,133	
32	Bessel i. 948.....	24	9	-2.93		76.26	1	1. 53. 12.97	3,224	No. 34. The accompanying star was considered to be of Mag. 10. See the note to the observation.
33	Bessel i. 980.....	25	9.10	-2.85	47.55	83. 3.	2	1. 54. 47.63	3,149	
34	Bessel i. 980.....	26	9.10	-2.85	47.70					
35	Bessel i. 1005.....	24	8 $\frac{3}{4}$	-2.87		82. 4	1	1. 56. 15.10	3,161	
36	α ARIETIS.....					67.15	18	1. 58. 47.06	3,363	
37	Bessel ii. 31.....	24	9 $\frac{1}{4}$	-2.94		78.49	1	2. 3. 30.21	3,206	
38	Bessel ii. 96.....	24	9	-2.96		78.28	1	2. 6. 58.97	3,214	
39	Bessel ii. 319.....	Jan. 27	8	-0.55		78.13	1	2. 19. 45.68	3,230	
40	ξ^2 Ceti.....	Feb. 8		+0.74		82.13	1	2. 20. 14.56	3,176	
41	Bessel ii. 451.....	Dec. 26	8.9	-2.93		77.31	1	2. 27. 15.38	3,248	No. 40. Bessel's R.A. is about 1° greater.
42	ν Ceti.....	Feb. 8		+0.70		85. 4	1	2. 28. 3.56	3,140	
43	H. C. 4881.....	Dec. 26	8	-3.06		70.55	1	2. 30. 15.81	3,353	
44	Bessel ii. 812.....	26	9.10	-3.03		77.52	1	2. 46. 47.12	3,262	
45	H. C. 5456.....	26	7.8	-3.14		72.47	1	2. 49. 33.70	3,350	
46	Bessel ii. 911.....	26	8	-3.02		79.56	1	2. 52. 0.78	3,233	
47	α CETI.....					86.30	10	2. 54. 29.73	3,127	
48	Bessel ii. 995.....	26	7.8	-3.14		74.47	1	2. 56. 23.68	3,324	
49	H. C. 5771.....	Nov. 11	8	-3.12	45.51					
50	H. C. 5771.....	Dec. 26	8 $\frac{3}{4}$	-3.17	45.41	73.40	2	2. 59. 45.46	3,347	No. 61. The R.A. is 1° greater than that of H. C., but agrees with that of Bessel z. 393, 3 ^h . 47 ^m . 49 ^s , which is the same star. The accompanying star, H. C. 7263, was considered to be of Mag. 8j.
51	H. C. 5821.....	26	8.9	-3.18		73.40	1	3. 1. 17.10	3,349	
52	Bessel iii. 12.....	Nov. 11	9	-3.03		78.31	1	3. 2. 4.83	3,264	
53	H. C. 5967.....	11	8	-3.15		72.15	1	3. 5. 39.39	3,381	
54	H. C. 5970.....	Feb. 1	9	-0.36		76.13	1	3. 5. 48.89	3,308	
55	Bessel iii. 119.....	Dec. 26	8.9	-3.16		76.15	1	3. 7. 4.09	3,309	
56	Bessel iii. 173.....	26	8.9	-3.20		75.21	1	3. 10. 9.54	3,328	
57	Bessel iii. 244.....	26	9.10	-3.15		78.26	1	3. 13. 33.52	3,275	
58	\circ Tauri.....	Feb. 8		+0.43		81.30	1	3. 16. 48.05	3,222	
59	f Tauri.....	8		+0.38		77.35	1	3. 22. 39.27	3,298	No. 67. Bessel iv. 103 was judged to be of the same magnitude.
60	H. C. 7266.....	Dec. 11	8	-3.50		69. 7	1	3. 48. 28.27	3,499	
61	H. C. 7362.....	11	8 $\frac{3}{4}$	-3.51		69. 7	1	3. 51. 5.75	3,502	
62	H. C. 7434.....	11	8 $\frac{3}{4}$	-3.55		68. 0	1	3. 53. 28.04	3,531	
63	H. C. 7580.....	11	9	-3.65		64.41	1	3. 57. 41.00	3,615	
64	H. C. 7712.....	11	8 $\frac{1}{4}$	-3.61		66.25	1	4. 1. 21.97	3,578	
65	Bessel iv. 65.....	11	9 $\frac{1}{4}$	-3.39		75.45	1	4. 4. 17.03	3,368	
66	Bessel iv. 105.....	11	8.9	-3.40		75.45	1	4. 6. 1.11	3,569	
67	H. C. 7999.....	Jan. 22	8	-0.16		67.34	1	4. 9. 22.69	3,559	
68	H. C. 8066.....	Dec. 11	8	-3.62		66.46	1	4. 11. 7.30	3,581	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of R.A. Jan. 1, 1851, as observed.	Approximate N.P.D. Jan. 1, 1851.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1851.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
70	γ Tauri.....	Nov. 10		-3.09		74.44	1	4.11.19,27	+3,395	
71	H. C. 8198.....	Dec. 11	8	-3.61		67.23	1	4.14.50,67	3,570	
72	δ^2 Tauri.....	Nov. 10		-3.11		72.54	1	4.15.30,81	3,440	
73	71 Tauri.....	Dec. 11	6	-3.44		74.43	1	4.17.51,61	3,400	
74	B.A.C. 1373.....	Feb. 1	7	-0.03		68.44	1	4.19.10,59	3,541	
75	H. C. 8434.....	Jan. 22	7 $\frac{3}{4}$	-0.18		66.45	1	4.21.25,56	3,593	
76	81 Tauri.....	Dec. 26	8	-3.51		74.38	1	4.22.9,18	3,405	No. 76 and 79. Probably the sky was not clear enough for the estimation of magnitudes.
77	H. C. 8541.....	Jan. 22	8	-0.17	19,25	70.58	2	4.24.19,19	3,492	No. 77 and 78. The R.A. by H. C. is about 1 ^s less.
78		Feb. 1	8 $\frac{1}{4}$	-0.05	19,12					
79	B.A.C. 1406.....	Dec. 26	8 $\frac{1}{4}$	-3.53		74.0	1	4.25.6,91	3,422	
80	ALDEBARAN.....					73.48	20	4.27.22,55	3,433	
81	H. C. 8730.....	Jan. 22	8 $\frac{1}{4}$	-0.21		67.39	1	4.30.18,93	3,579	
82	τ Tauri.....	22	5.6	-0.23	18,64					
83		Feb. 1	5.6	-0.10	18,42	67.20	2	4.33.18,53	3,590	
84	H. C. 8917.....	1	9	-0.13		64.14	1	4.37.2,94	3,674	
85	H. C. 9008.....	1	8 $\frac{1}{4}$	-0.13		68.57	1	4.39.53,07	3,554	
86	σ^1 Orionis.....	Dec. 8		-3.43		76.0	1	4.44.6,46	3,386	
87	H. C. 9136.....	Feb. 1	8	-0.16		66.56	1	4.44.35,02	3,609	
88	*	Jan. 9	9	-0.35		70.16	1	4.46.7,15	3,525	No. 83. The N.P.D. was found by an Equatorial observation Nov. 19, 1856. At the same time Bessel z. 343, 4 ^h .44 ^m .11 ^s , which has nearly the same R.A., and 14' less N.P.D., could not be found.
89	H. C. 9250.....	Feb. 1	9 $\frac{1}{4}$	-0.19		62.51	1	4.48.23,09	3,723	No. 89. The R.A. by H. C. is about 0 ^s .7 less.
90	H. C. 9331.....	Jan. 9	9	-0.38		66.29	1	4.50.31,44	3,626	
91	H. C. 9412.....	Feb. 1	8	-0.18		74.29	1	4.52.49,57	3,426	
92	ϵ Tauri.....	Jan. 9	5	-0.37		68.33	1	4.54.11,74	3,572	
93	11 Orionis.....	Feb. 11		-0.06	3,48					
94		Dec. 8		-3.45	3,62	74.48	2	4.56.3,55	3,420	
95	H. C. 9517.....	Feb. 1	8	-0.20		71.57	1	4.56.9,23	3,490	
96	B.A.C. 1577.....	1	7.8	-0.24		61.56	1	4.59.13,91	3,759	
97	15 Orionis.....	11		-0.08		74.36	1	5.1.10,49	3,427	
98	H. C. 9704.....	1	8.9	-0.26		61.12	1	5.1.55,68	3,782	
99	RIGEL.....					98.23	22	5.7.22,75	2,880	
100	H. C. 9929.....	1	9	-0.28		64.59	1	5.11.8,66	3,680	
101	H. C. 10007.....	1	8 $\frac{3}{4}$	-0.31		61.3	1	5.13.33,64	3,795	
102	H. C. 10080.....	Jan. 27		-0.33		70.9	1	5.15.8,08	3,544	No. 102. The recorded R.A. was 1 ^m less: that of H. C. has been verified by a subsequent observation.
103	β TAURI.....					61.31	14	5.16.52,62	3,789	
104	114 Tauri.....	Nov. 10		-3.08		68.12	1	5.18.41,34	3,597	
105	B.A.C. 1703.....	Jan. 27	7 $\frac{1}{2}$	-0.34		73.41	1	5.19.34,10	3,456	
106	H. C. 10390.....	27	7 $\frac{3}{4}$	-0.38		65.29	1	5.24.22,72	3,673	
107	ζ Tauri.....	Mar. 11		+0.26		68.57	1	5.28.44,58	3,580	
108	H. C. 10857.....	Jan. 22	8	-0.44		71.16	1	5.37.4,15	3,522	
109	H. C. 10981.....	22	8	-0.46		68.55	1	5.40.18,34	3,584	
110	H. C. 11070.....	22	8	-0.46		70.31	1	5.43.3,99	3,542	
111	α ORIONIS.....					82.38	21	5.47.6,38	3,247	
112	μ Geminorum.....	Feb. 11		-0.41	56,74					
113		Mar. 11		+0.04	56,77	67.25	2	6.13.56,76	3,636	
114	H. C. 12158.....	Feb. 4	8 $\frac{1}{4}$	-0.48	29,55					
115		15	8	-0.36	29,50	66.51	2	6.14.29,52	3,641	No. 115. The accompanying star was judged to be of Mag. 9. See the note to the observation.
116	H. C. 12262.....	28	7 $\frac{1}{2}$	-0.18		71.9	1	6.17.26,26	3,526	No. 117. The south-preceding star was estimated at Mag. 8.9.
117	15 Geminorum.....	15	7 $\frac{3}{4}$	-0.38		69.7	1	6.18.53,67	3,579	
118	H. C. 12339.....	4	7.8	-0.51		62.56	1	6.19.36,80	3,751	
119	ν Geminorum.....	Mar. 11		0.00		69.42	1	6.20.7,05	3,563	
120	H. C. 12396.....	Feb. 28	7 $\frac{1}{2}$	-0.20		72.17	1	6.21.8,98	3,496	
121	H. C. 12483.....	24	8	-0.29		61.49	1	6.23.41,78	3,783	
122	22 Geminorum.....	4	8	-0.51	51,70					
123		15	7.8	-0.40	51,52	70.28	3	6.25.51,64	3,542	
124		28	6 $\frac{1}{2}$	-0.22	51,71					
125	H. C. 12650.....	28	8	-0.23		70.43	1	6.28.15,33	3,535	
126	H. C. 12716.....	15	7 $\frac{1}{4}$	-0.43		65.17	1	6.30.23,12	3,681	
127	H. C. 12815.....	24	8.9	-0.32		68.40	1	6.32.53,97	3,587	
128	H. C. 12871.....	4	8	-0.53	25,11					
129		15	8	-0.44	25,23	72.0	2	6.34.25,17	3,500	No. 128. H. C. 12675 was considered to be of the same magnitude.
130	H. C. 12896.....	Dec. 11	8 $\frac{1}{4}$	-3.48		71.12	1	6.35.3,43	3,520	
131	SIRIUS.....					106.31	17	6.38.34,95	2,645	
132	H. C. 13125.....	Feb. 15	9	-0.48	47,54					No. 132. 'This is a brighter star than H. C. 13122.' Equatorial observation Nov. 19, 1856.
133		Mar. 11	9	-0.11	47,45	64.4	2	6.41.47,50	3,710	No. 134. This R.A. agrees with that obtained in 1850. The R.A. of H. C. is more than 1 ^s less.
134	H. C. 13259.....	Feb. 15	8	-0.49		63.17	1	6.45.13,96	3,731	
135	CASTOR.....					57.47	8	7.25.5,20	3,841	
136	PROCYON.....					84.24	21	7.31.30,08	3,146	
137	POLLUX.....					61.37	16	7.36.11,52	3,683	
138	82 Geminorum.....	Feb. 4	7	-0.69		66.29	1	7.39.38,74	+3,593	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of R.A. Jan. 1, 1851, as observed.	Approximate N.P.D. Jan. 1, 1851.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1851.			Annual Variation.	Notes.
				s.	s.	° ' "		h.	m.	s.	s.	
139	H. C. 15398.....	Jan. 24	8½	-0,66		71.39	1	7.46.	20,26		+ 3,467	Nos. 147 and 148. The R.A. of H. C. is about 1 ^s less.
140	H. C. 15528.....	24	9	-0,66	8,34							
141	—	Mar. 14	9	-0,39	8,06	68.27	2	7.50.	8,20		3,539	
142	B.A.C. 2658.....	4	7½	-0,53		71.21	1	7.52.	5,48		3,469	
143	H. C. 15601.....	Jan. 24	8½	-0,66		73. 0	1	7.52.	13,71		3,431	
144	H. C. 15703.....	Mar. 4	8	-0,54	56,70							
145	—	14	8½	-0,41	56,74	72.44	2	7.54.	56,72		3,435	
146	H. C. 15702.....	Jan. 24	8	-0,66		67.31	1	7.55.	2,48		3,556	
147	H. C. 15834.....	Mar. 4	8½	-0,56	33,87							
148	—	14	8	-0,43	33,92	74.25	2	7.58.	33,90		3,395	
149	H. C. 15939.....	4	8½	-0,57	45,00							No. 167. Considered on this day to be brighter than Bessel VIII. 586.
150	—	14	7½	-0,44	44,99	75. 3	2	8. 1.	45,00		3,378	
151	B.A.C. 2748.....	4	7½	-0,58	1,87							
152	—	14	7½	-0,45	1,77	75.33	2	8. 4.	1,82		3,366	
153	H. C. 16099.....	4	8½	-0,59		68.28	1	8. 6.	12,39		3,520	
154	H. C. 16172.....	14	8½	-0,47		68.22	1	8. 8.	32,48		3,520	
155	H. C. 16258.....	4	8½	-0,60	40,89							
156	—	6	8	-0,57	40,77	68.17	2	8.10.	40,83		3,519	
157	H. C. 16332.....	11	8	-0,53	2,90							
158	—	14	8	-0,49	3,01	66.35	2	8.13.	2,96		3,555	
159	H. C. 16364.....	4	8	-0,61		75.54	1	8.13.	35,44		3,351	Nos. 184 and 185. This star is H. C. 17689. Bessel's R.A. is about 5 ^s too great. The precession in Weisse's Catalogue should be 3,272 instead of 3,324.
160	H. C. 16379.....	6	9.10	-0,58		75.47	1	8.14.	10,28		3,353	
161	Bessel VIII. 415....	4	9	-0,62	2,22							
162	—	11	8½	-0,54	2,30	76. 1	3	8.16.	2,25		3,347	
163	—	14	8½	-0,50	2,22							
164	H. C. 16554.....	6	8	-0,60	37,89							
165	—	11	8	-0,55	38,13	66.21	2	8.18.	38,01		3,552	
166	H. C. 16596.....	4	8½	-0,63		73.12	1	8.19.	35,30		3,402	
167	Bessel VIII. 583....	6	8½	-0,62		75. 4	1	8.22.	29,12		3,360	
168	Bessel VIII. 586....	11	9.10	-0,57		75. 8	1	8.22.	30,89		3,359	
169	35 Cancri.....	11	6.7	-0,58		69.54	1	8.26.	45,26		3,463	Nos. 184 and 185. This star is H. C. 17689. Bessel's R.A. is about 5 ^s too great. The precession in Weisse's Catalogue should be 3,272 instead of 3,324.
170	H. C. 16964.....	11	7½	-0,60		65.47	1	8.29.	59,10		3,548	
171	Bessel VIII. 811....	14	9	-0,56		76.28	1	8.31.	2,55		3,325	
172	B.A.C. 2931.....	11	7½	-0,61		69.36	1	8.33.	16,34		3,461	
173	Bessel VIII. 936....	11	8½	-0,61		75.50	1	8.35.	37,63		3,333	
174	δ Cancri.....	Feb. 14		-0,76	12,86							
175	—	Mar. 14		-0,59	12,74	71.18	2	8.36.	12,80		3,422	
176	ε HYDRÆ.....					83. 2	21	8.38.	52,98		3,189	
177	Bessel VIII. 1072 ..	4	8½	-0,70	23,49							
178	—	6	7½	-0,68	23,43	77.17	2	8.41.	23,46		3,301	Nos. 184 and 185. This star is H. C. 17689. Bessel's R.A. is about 5 ^s too great. The precession in Weisse's Catalogue should be 3,272 instead of 3,324.
179	Bessel VIII. 1134 ..	4	8.9	-0,70	48,26							
180	—	6	8	-0,69	47,96	76. 3	2	8.43.	48,11		3,321	
181	Bessel VIII. 1210 ..	6	8½	-0,70		75.52	1	8.46.	32,59		3,322	
182	Bessel VIII. 1264 ..	Feb. 5	8	-0,74		77.12	1	8.48.	54,03		3,296	
183	Bessel VIII. 1287 ..	Mar. 6	8½	-0,71		78.37	1	8.49.	45,00		3,269	
184	Bessel VIII. 1299 ..	6	8½	-0,71	9,75							
185	—	11	8	-0,67	10,01	78.35	2	8.50.	9,88		3,270	
186	α Cancri.....	14		-0,64		77.34	1	8.50.	20,05		3,288	
187	Bessel VIII. 1344 ..	Feb. 5	8.9	-0,74	58,70							
188	—	28	8.9	-0,75	58,62	75.34	2	8.51.	58,66		3,322	Nos. 184 and 185. This star is H. C. 17689. Bessel's R.A. is about 5 ^s too great. The precession in Weisse's Catalogue should be 3,272 instead of 3,324.
189	H. C. 17801.....	Mar. 6	8½	-0,72	46,97							
190	—	11	8½	-0,67	47,21	74.49	2	8.53.	47,09		3,334	
191	H. C. 17847.....	Feb. 5	8½	-0,74		68.51	1	8.55.	4,13		3,444	
192	Bessel VIII. 1441 ..	28	8	-0,76		77.11	1	8.56.	20,81		3,289	
193	B.A.C. 3095.....	Mar. 11	8	-0,69		78.33	1	8.56.	30,81		3,265	
194	B.A.C. 3103.....	Feb. 5	7½	-0,74	54,16							
195	—	Mar. 6	7½	-0,73	53,96	72.17	2	8.57.	54,06		3,375	
196	H. C. 17999.....	Feb. 28	7½	-0,77	53,77							
197	—	Mar. 11	7.8	-0,69	53,85	74.41	2	8.59.	53,81		3,330	Nos. 184 and 185. This star is H. C. 17689. Bessel's R.A. is about 5 ^s too great. The precession in Weisse's Catalogue should be 3,272 instead of 3,324.
198	Bessel VIII. 1552...	Feb. 5	8	-0,74	19,89							
199	—	Mar. 6	8½	-0,74	19,67	76. 2	2	9. 1.	19,78		3,304	
200	Bessel IX. 119.....	Feb. 5	7½	-0,74		77.47	1	9. 6.	19,89		3,270	
201	Bessel IX. 127.....	Mar. 11	8	-0,72		77.53	1	9. 6.	35,30		3,268	
202	H. C. 18320.....	Feb. 5	7.8	-0,74		70.35	1	9. 9.	53,65		3,389	
203	Bessel IX. 222.....	Jan. 28	8½	-0,66		78.39	1	9.10.	55,12		3,251	
204	H. C. 18414.....	Feb. 5	7	-0,73		72.46	1	9.13.	8,39		3,347	
205	H. C. 18454.....	Mar. 11	8	-0,74	27,25							
206	—	18	8	-0,68	27,42	71.14	2	9.14.	27,34		3,371	Nos. 184 and 185. This star is H. C. 17689. Bessel's R.A. is about 5 ^s too great. The precession in Weisse's Catalogue should be 3,272 instead of 3,324.
207	H. C. 18457.....	Jan. 28	8½	-0,65		73.35	1	9.14.	31,03		+ 3,331	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of R.A. Jan. 1, 1851, as observed.	Approximate N.P.D. Jan. 1, 1851.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1851.	Annual Variation.	Notes.
				s.	s.	° /		h. m. s.	s.	
208	Bessel ix. 359	Mar. 11	9.10	-0.75	10.98	75.10	2	9.17.11.17	+3,302	
209	—	18	8½	-0.69	11.35	75.10	2	9.17.11.17	+3,302	
210	α HYDRÆ					98.1	24	9.20.15.95	2,948	
211	* (Mag. 9)	Apr. 5		-0.49	55.48	64.56	2	9.22.55.56	3,466	
212	—	12		-0.39	55.64					
213	ξ Leonis	Feb. 14		-0.80	54.67					
214	—	15		-0.81	54.62	78.3	3	9.23.54.61	3,249	
215	—	Apr. 11		-0.43	54.55					
216	Bessel ix. 591	Mar. 18	7½	-0.72		75.20	1	9.27.1.00	3,287	
217	H. C. 18861	Jan. 28	9	-0.62	6.58	70.24	2	9.28.6.55	3,363	Nos. 217 and 218. The R.A. by H. C. is nearly 0.7 greater.
218	—	Mar. 26	8.9	-0.64	6.52					
219	B.A.C. 3299	Jan. 28	7½	-0.63	11.47					
220	—	Mar. 18	7½	-0.73	11.71	76.1	3	9.31.11.62	3,272	
221	—	26	7.8	-0.66	11.67					
222	H. C. 18995	20	9	-0.72		71.23	1	9.32.49.80	3,340	
223	o Leonis	Feb. 14		-0.80	11.68					
224	—	15		-0.80	11.72	79.26	2	9.33.11.70	3,220	
225	H. C. 19036	Mar. 18	8	-0.74	5.04					
226	—	26	8	-0.67	5.03	72.9	2	9.34.5.04	3,327	
227	ψ Leonis	20	4.5	-0.72		75.18	1	9.35.36.73	3,277	
228	Bessel ix. 808	26	8.9	-0.69		82.10	1	9.36.51.87	3,178	
229	18 Leonis	20	6	-0.74		77.30	1	9.38.21.40	3,242	
230	H. C. 19162	18	8½	-0.75		71.11	1	9.38.32.81	3,334	
231	Bessel ix. 872	26	7½	-0.69		75.50	1	9.39.44.04	3,265	
232	H. C. 19239	20	8	-0.77		74.42	1	9.40.59.53	3,279	
233	21 Leonis	18	7	-0.77		77.26	1	9.42.48.05	3,239	
234	Bessel ix. 962	Jan. 28	9	-0.63		82.50	1	9.44.17.24	3,164	
235	Bessel ix. 963	Mar. 20	8½	-0.77		81.11	1	9.44.18.32	3,186	
236	Bessel ix. 1011	18		-0.79	47.10					
237	—	Apr. 12	8½	-0.54	46.97	82.13	2	9.46.47.04	3,171	
238	Bessel ix. 1017	Mar. 20	7½	-0.78		82.7	1	9.47.1.57	3,172	
239	H. C. 19442	26	7	-0.72		74.34	1	9.48.31.42	3,271	
240	26 Leonis	Apr. 12	7.8	-0.53		74.4	1	9.50.5.39	3,276	
241	Bessel ix. 1118	Mar. 26	7.8	-0.75		84.4	1	9.51.55.06	3,144	
242	Bessel ix. 1137	Apr. 12	9	-0.56		78.31	1	9.53.7.35	3,213	
243	H. C. 19589	Mar. 26	8.9	-0.74		76.23	1	9.54.5.38	3,240	
244	H. C. 19617	Apr. 12	8	-0.57		82.10	1	9.55.4.69	3,166	No. 244. This appears to be Bessel ix. 1184, the declination of which in Weisse's Catalogue should have the sign +.
245	Bessel ix. 1221	Mar. 26	9	-0.75		80.28	1	9.56.26.98	3,186	
246	REGULUS					77.18	18	10.0.25.95	3,203	
247	Bessel x. 161	Apr. 12	9	-0.64		81.44	1	10.9.57.07	3,160	
248	γ Leonis. <i>np.</i>	Mar. 14		-0.86		69.24	1	10.11.45.23	3,299	
249	Bessel x. 240	Apr. 12	7½	-0.65		77.55	1	10.14.13.71	3,198	
250	H. C. 20183	12	8	-0.66		78.5	1	10.17.3.23	3,193	
251	Bessel x. 354	12	8.9	-0.68		80.55	1	10.20.6.15	3,161	
252	ρ Leonis	Feb. 15		-0.79	57.80					
253	—	Apr. 11		-0.71	57.76	79.56	3	10.24.57.76	3,166	
254	—	12		-0.69	57.71					
255	Bessel x. 496	12	9½	-0.71		77.57	1	10.28.5.29	3,182	
256	Bessel x. 552	12	7	-0.73		83.18	1	10.30.41.95	3,130	
257	Bessel x. 603	12	8½	-0.73		76.20	1	10.33.47.64	3,190	
258	Bessel x. 658	12	8½	-0.76		85.11	1	10.36.50.83	3,111	
259	Bessel x. 732	12	8	-0.76		80.59	1	10.40.56.47	3,142	
260	Bessel x. 821	5	9	-0.85	58.07					
261	—	12	9	-0.79	58.07	85.36	2	10.44.58.07	3,104	No. 259. The observer noted that there was 'no star at 80°.49' N.P.D.' Hence H. C. 20621 is the same star with an error of 10' in N.P.D.
262	H. C. 21015	5	8½	-0.85		81.31	1	10.48.10.84	3,132	
263	Bessel x. 938	5	8½	-0.87		84.51	1	10.51.52.51	3,106	
264	Bessel x. 938	5	9½	-0.86	51.02					
265	—	12	9	-0.82	50.94	81.3	2	10.54.50.98	3,130	
266	Bessel x. 1058	4	8	-0.90	35.72					
267	—	5	8	-0.90	35.75	86.48	3	10.58.35.70	3,090	
268	—	12	8.9	-0.85	35.62					
269	Bessel x. 1100	5	7½	-0.88		81.33	1	11.0.43.26	3,121	
270	ρ ⁴ Leonis	4	7	-0.93		90.31	1	11.1.37.31	3,068	
271	Bessel xi. 42	5	8½	-0.91		85.40	1	11.3.40.63	3,095	
272	δ LEONIS					68.40	13	11.6.10.70	3,207	
273	Bessel xi. 142	4	9	-0.95	7.76					
274	—	5	9½	-0.94	7.64	90.15	2	11.9.7.70	3,069	
275	Bessel xi. 206	4	8.9	-0.94		86.45	1	11.13.17.19	3,086	No. 275. This is H. C. 21626. Bessel's R.A. is 1 ^m less. See the observation of 1850 p. 217.
276	σ Leonis	12		-0.89	27.05					
277	—	May 9		-0.64	27.08	83.9	2	11.13.27.06	+3,103	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of R.A. Jan. 1, 1851, as observed.	Approximate N.P.D. Jan. 1, 1851.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1851.	Annual Variation.	Notes.
				s.	s.	o		h. m. s.	s.	
278	Bessel xi. 232.....	Apr. 5	8 $\frac{3}{4}$	-0.96		91. 7	1	11. 13. 48,66	+ 3,065	
279	Bessel xi. 295.....	4	8 $\frac{1}{4}$	-0.93		81. 13	1	11. 17. 41,14	3,109	
280	τ Leonis.....	12		-0.92		86. 19	1	11. 20. 16,40	3,085	
281	H. C. 21911.....	17	8	-0.92		89. 35	1	11. 24. 40,32	3,072	
282	Bessel xi. 479.....	17	9	-0.90		81. 15	1	11. 27. 39,73	3,100	
283	H. C. 22079.....	17	8.9	-0.91		83. 23	1	11. 31. 20,88	3,090	
284	*.....	17	9 $\frac{1}{4}$	-0.92		82. 37	1	11. 35. 58,60	3,089	
285	Bessel xi. 679.....	17	8.9	-0.94		84. 20	1	11. 38. 41,58	3,083	
286	β LEONIS.....					74. 36	17	11. 41. 27,43	3,066	
287	Bessel xi. 844.....	28	8 $\frac{3}{4}$	-0.92		83. 49	1	11. 49. 9,92	3,077	
288	Bessel xi. 895.....	28	8.9	-0.95		91. 5	1	11. 51. 56,62	3,070	
289	H. C. 22584.....	15	9	-1.04		94. 17	1	11. 53. 0,85	3,068	
290	Bessel xi. 959.....	28	9 $\frac{1}{4}$	-0.97		91. 37	1	11. 55. 54,24	3,070	
291	B.A.C. 4069.....	15	7.8	-1.01		85. 35	1	11. 57. 5,41	3,072	
292	Bessel xi. 997.....	28	9 $\frac{1}{4}$	-1.01		95. 42	1	11. 58. 12,99	3,070	
293	H. C. 22755.....	15	7 $\frac{3}{4}$	-1.01		84. 39	1	11. 59. 55,56	3,071	
294	Bessel xi. 1032.....	May 6	9	-0.94		91. 15	1	12. 0. 41,24	3,071	
295	10 Virginis.....	Apr. 28	7	-0.97		87. 15	1	12. 2. 3,26	3,070	
296	Bessel xii. 44.....	15	8 $\frac{1}{4}$	-1.07	42,12	95. 5	2	12. 3. 42,05	3,073	
297	-----	May 6	8 $\frac{3}{4}$	-0.97	41,97					
298	Bessel xii. 82.....	Apr. 28	8.9	-1.00		90. 24	1	12. 5. 59,00	3,071	
299	Bessel xii. 93.....	May 6	9	-0.96		90. 48	1	12. 6. 31,78	3,071	
300	Bessel xii. 103.....	Apr. 15	8	-1.06		90. 30	1	12. 7. 22,38	3,071	
301	Bessel xii. 121.....	28	9 $\frac{1}{4}$	-1.05	26,63	96. 38	2	12. 8. 26,70	3,076	
302	-----	May 9	8.9	-0.98	26,76					
303	Bessel xii. 138.....	6	8 $\frac{1}{4}$	-0.96		88. 49	1	12. 9. 20,79	3,070	
304	B.A.C. 4135.....	Apr. 15	7.8	-1.05	31,11					
305	-----	19	7.8	-1.07	31,15	93. 7	3	12. 10. 31,12	3,074	
306	-----	May 9	7.8	-0.97	31,10					
307	Bessel xii. 178.....	Apr. 28	9	-1.03		92. 29	1	12. 11. 35,46	3,074	
308	Bessel xii. 218.....	May 6	9	-0.98	39,20					
309	-----	9	9.10	-0.96	39,35	89. 25	2	12. 13. 39,28	3,070	
310	Bessel xii. 249.....	Apr. 28	8 $\frac{3}{4}$	-1.06		94. 57	1	12. 15. 16,68	3,078	
311	Bessel xii. 272.....	May 6	8.9	-1.03		94. 49	1	12. 17. 5,83	3,079	
312	Bessel xii. 291.....	9	8 $\frac{1}{4}$	-1.01		94. 2	1	12. 18. 10,94	3,078	
313	Bessel xii. 308.....	Apr. 19	9 $\frac{1}{4}$	-1.11	18,82					
314	-----	May 17	8.9	-0.97	18,73	95. 14	2	12. 19. 18,78	3,081	
315	B.A.C. 4200.....	Apr. 15	7.8	-1.10		93. 47	1	12. 20. 12,94	3,078	
316	Bessel xii. 356.....	May 9	8.9	-0.99		88. 1	1	12. 21. 18,01	3,066	
317	B.A.C. 4220.....	Apr. 15	7 $\frac{3}{4}$	-1.11	11,58					
318	-----	19	9	-1.10	11,67	93. 14	2	12. 23. 11,62	3,078	
319	Bessel xii. 388.....	Mar. 20	10	-1.01		91. 14	1	12. 23. 31,67	3,074	
320	Bessel xii. 390.....	May 9	9 $\frac{1}{4}$	-1.05		96. 50	1	12. 23. 36,27	3,087	
321	Bessel xii. 414.....	8	9	-1.03		93. 20	1	12. 24. 34,98	3,079	
322	β CORVI.....					112. 34	17	12. 26. 34,20	3,131	
323	Bessel xii. 490.....	8	7 $\frac{3}{4}$	-1.04		91. 31	1	12. 29. 26,69	3,075	
324	Bessel xii. 523.....	Mar. 20	8 $\frac{3}{4}$	-1.04	22,73					
325	-----	May 6	9	-1.10	22,64	97. 5	2	12. 31. 22,68	3,093	
326	Bessel xii. 555.....	8	9 $\frac{1}{4}$	-1.10		97. 56	1	12. 33. 17,98	3,098	
327	Bessel xii. 557.....	14	9.10	-1.02		89. 48	1	12. 33. 25,76	3,070	
328	Bessel xii. 562.....	Mar. 20	9	-1.04		96. 33	1	12. 33. 41,47	3,093	
329	γ Virginis.....	18		-0.97		90. 38	1	12. 34. 6,86	3,073	
330	Bessel xii. 569.....	May 6	8 $\frac{3}{4}$	-1.07	10,90					
331	-----	9	8.9	-1.06	11,07	91. 56	2	12. 34. 10,99	3,077	
332	Bessel xii. 621.....	9	8.9	-1.13	39,86					
333	-----	14	9	-1.10	39,90	100. 30	2	12. 36. 39,88	3,110	
334	Bessel xii. 639.....	13	9	-1.09		97. 52	1	12. 37. 46,35	3,101	
335	Bessel xii. 677.....	9	8 $\frac{3}{4}$	-1.10	50,96					
336	-----	14	9	-1.07	51,07	95. 4	2	12. 39. 51,02	3,091	
337	Bessel xii. 729.....	9	9	-1.09	45,32					
338	-----	13	8 $\frac{3}{4}$	-1.07	45,39	91. 0	3	12. 42. 45,39	3,075	
339	-----	14	9	-1.06	45,47					
340	Bessel xii. 772.....	9	9	-1.11	18,26					
341	-----	13	9	-1.09	18,34	93. 19	2	12. 45. 18,30	3,086	
342	Bessel xii. 796.....	14	8.9	-1.12		96. 48	1	12. 46. 43,46	3,103	
343	Bessel xii. 820.....	9	8	-1.12	1,90					
344	-----	13	7 $\frac{3}{4}$	-1.10	1,90	92. 44	2	12. 48. 1,90	3,084	
345	δ Virginis.....	Mar. 18		-0.94		85. 48	1	12. 48. 6,03	3,050	
346	Bessel xii. 845.....	May 14	8 $\frac{1}{4}$	-1.15		100. 4	1	12. 49. 11,97	+ 3,121	

No. 284. The N.P.D. was determined by an Equatorial observation on April 2, 1857. The N.P.D. of H. C. 22162, for which this star was taken, is 10' too small. Bessel xi. 617 is the same star as H. C. 22162.

No. 283. Of Mag. 7 by Bessel.

Nos. 317 and 318. The Mag. in B.A.C. is 7. The estimations of magnitudes on April 15 were considered by the observer to be affected by a thin cloud which covered the sky. The observation of April 19 has the note 'cloudy.'

No. 321. Bessel's R.A. is 1 $\frac{1}{2}$ less than this, and more than 2" less than that of H. C. 23440.

No. 326. H. C. 23657 is the same as Bessel xii. 561, if the R.A. of H. C. be 1" in defect. See the note to this observation.

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of R.A. Jan. 1, 1851, as observed.	Approximate N.P.D. Jan. 1, 1851.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1851.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
347	Bessel xii. 867....	May 9	8 $\frac{1}{4}$	-1.11	49.48	90.14	2	12.50.49.46	+3.072	No. 349. Bessel's R.A. is about 2° greater, and that of H. C. 23° greater. Has the star proper motion?
348		13	8	-1.09	49.43					
349	Bessel xii. 880....	14	7.8	-1.15		99.2	1	12.51.24.10	3.118	
350	46 Virginis.....	13	7	-1.12		92.34	1	12.52.55.83	3.084	
351	Bessel xii. 953....	13	9.10	-1.13		93.12	1	12.55.20.01	3.089	
352	Bessel xii. 1011....	13	9	-1.19		99.15	1	12.58.37.62	3.126	
353	Bessel xii. 1058....	13	8.9	-1.16		95.12	1	13.1.6.14	3.103	
354	Bessel xiii. 37....	13	8 $\frac{3}{4}$	-1.20		98.47	1	13.3.31.85	3.127	
355	Bessel xiii. 92....	13	9	-1.18	16.14					
356		17	9 $\frac{1}{4}$	-1.17	16.09	95.1	2	13.6.16.12	3.104	
357	H. C. 24598.....	9	9	-1.20	52.02					
358		19	9	-1.16	51.99	94.50	2	13.7.52.00	3.104	
359	Bessel xiii. 163...	13	9	-1.25		101.19	1	13.10.18.31	3.151	
360	Bessel xiii. 177...	9	8	-1.26		101.13	1	13.10.59.39	3.151	
361	Bessel xiii. 193...	19	8.9	-1.24		101.42	1	13.11.45.74	3.156	
362	Bessel xiii. 206...	13	8.9	-1.24		99.25	1	13.12.39.11	3.140	
363	B.A.C. 4471.....	9	8	-1.28	16.05					
364		19	7.8	-1.25	16.03	101.47	2	13.14.16.04	3.160	
365	SPICA.....					100.23	24	13.17.20.97	3.149	
366	Bessel xiii. 320....	19	8.9	-1.22		96.2	1	13.19.55.86	3.119	
367	Bessel xiii. 321....	9	9.10	-1.23	3.26					
368		13	9.10	-1.22	3.40	94.11	2	13.20.3.33	3.104	
369	Bessel xiii. 391....	13	8 $\frac{1}{4}$	-1.27		99.29	1	13.23.58.42	3.151	
370	Bessel xiii. 395....	19	8 $\frac{1}{4}$	-1.23		95.14	1	13.24.7.00	3.115	
371	Bessel xiii. 444....	23	9	-1.29		102.40	1	13.26.35.84	3.182	
372	Bessel xiii. 445....	19	9 $\frac{1}{4}$	-1.30		102.40	1	13.26.37.66	3.182	
373	ζ Virginis.....	July 5		-0.86		89.50	1	13.27.6.18	3.069	
374	H. C. 25180.....	May 23	9	-1.26		98.20	1	13.30.29.81	3.146	
375	H. C. 25199.....	19	8 $\frac{1}{4}$	-1.34		104.26	1	13.31.21.11	3.204	
376	Bessel xiii. 572....	14	9 $\frac{1}{4}$	-1.31		100.32	1	13.33.18.41	3.169	
377	Bessel xiii. 590....	19	9	-1.26		94.55	1	13.34.35.15	3.117	No. 372. The magnitude of Bessel xiii. 444 was estimated on this day at 8.9.
378	Bessel xiii. 620....	14	9	-1.28		94.51	1	13.35.54.78	3.117	
379	B.A.C. 4584.....	19	8	-1.32		100.28	1	13.37.58.84	3.173	
380	η Virginis.....	19	7 $\frac{1}{2}$	-1.29		96.5	1	13.40.30.71	3.131	
381	Bessel xiii. 725....	8	9 $\frac{1}{4}$	-1.34		100.16	1	13.41.54.68	3.175	
382	Bessel xiii. 750....	19	7.8	-1.36		102.16	1	13.43.38.29	3.198	
383	Bessel xiii. 773....	8	9	-1.32		97.21	1	13.45.25.99	3.147	
384	Bessel xiii. 801....	19	9.10	-1.38		103.29	1	13.47.5.27	3.215	
385	Bessel xiii. 842....	8	8.9	-1.35		99.58	1	13.48.51.82	3.178	
386	Bessel xiii. 878....	19	7	-1.33		96.11	1	13.51.10.97	3.138	
387	B.A.C. 4666.....	8	7	-1.33		97.25	1	13.52.13.90	3.152	
388	H. C. 25762.....	19	9	-1.41		103.38	1	13.54.31.63	3.226	
389	Bessel xiii. 973....	8	8 $\frac{1}{2}$	-1.38		102.2	1	13.56.1.34	3.209	
390	Bessel xiii. 1001....	19	8 $\frac{3}{4}$	-1.43		105.18	1	13.57.3.52	3.249	
391	Bessel xiii. 1023....	23	8 $\frac{3}{4}$	-1.40		101.59	1	13.57.52.54	3.210	
392	95 Virginis.....	8	6.7	-1.36		98.36	1	13.58.50.50	3.171	
393	Bessel xiii. 1070....	19	8.9	-1.40		101.51	1	14.0.24.77	3.211	
394	Bessel xiii. 1089....	23	9 $\frac{1}{2}$	-1.37		97.17	1	14.1.11.92	3.157	
395	κ Virginis.....	Apr. 15		-1.23	57.28					
396		May 13		-1.40	57.19	99.35	2	14.4.57.24	3.188	
397	Bessel xiv. 127....	23	10	-1.41		100.30	1	14.7.57.70	3.202	
398	ι Virginis.....	13		-1.37		95.17	1	14.8.12.52	3.136	
399	ARCTURUS.....					70.2	25	14.8.52.03	2.733	
400	λ Virginis.....	Apr. 15		-1.25		102.41	1	14.11.3.16	3.233	
401	Bessel xiv. 190....	May 23	10.11	-1.47		104.33	1	14.11.5.73	3.259	
402	Bessel xiv. 283....	19	8.9	-1.45		102.15	1	14.15.45.78	3.233	
403	Bessel xiv. 607....	19	8.9	-1.50		103.17	1	14.33.11.08	3.266	
404	ε Bootis.....					62.18	24	14.38.28.78	2.622	
405	Bessel xiv. 735....	19	9	-1.50		101.44	1	14.39.38.32	3.249	
406	α° LIBRÆ.....					105.25	17	14.42.38.65	3.307	
407	H. C. 27080.....	19	8 $\frac{1}{4}$	-1.60		109.21	1	14.45.14.17	3.380	No. 401. This magnitude was estimated in a very misty sky.
408	ζ° LIBRÆ.....	19	6	-1.51		100.48	1	14.48.41.39	3.242	
409	δ° LIBRÆ.....	13		-1.46	0.96					
410		14		-1.46	1.11	97.55	2	14.53.1.04	3.198	
411	Bessel xiv. 1013....	19	9	-1.55		104.33	1	14.54.8.23	3.310	
412	ζ' LIBRÆ.....	Apr. 17		-1.21		106.12	1	15.19.51.69	3.368	
413	H. C. 28282.....	June 17	9.10	-1.81		112.57	1	15.24.30.25	3.511	
414	γ LIBRÆ.....	Apr. 17		-1.08		104.17	1	15.27.11.98	3.338	
415	α CORONÆ.....					62.47	21	15.28.22.83	+2.538	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of R.A. Jan. 1, 1851, as observed.	Approximate N.P.D. Jan. 1, 1851.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1851.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
416	H. C. 28560.....	June 17	9	-1,84		112.33	1	15.33.17,97	+3,516	
417	η Libræ.....	May 14		-1,55	41,97	105.12	2	15.35.41,93	3,364	
418	—	15		-1,56	41,89					
419	α SERPENTIS.....					83.6	17	15.36.55,90	2,951	
420	θ Libræ.....	14		-1,57	21,08					
421	—	15		-1,57	20,89	106.17	3	15.45.20,95	3,396	
422	—	Aug. 5		-1,44	20,87					
423	H. C. 28901.....	June 19	8½	-1,81		108.30	1	15.45.21,64	3,443	
424	H. C. 28966.....	17	9	-1,88		112.45	1	15.47.58,40	3,541	
425	H. C. 29001.....	19	7	-1,85		110.33	1	15.48.58,40	3,492	
426	H. C. 29038.....	19	8½	-1,86		110.35	1	15.50.17,64	3,494	
427	H. C. 29130.....	17	9.10	-1,84		109.2	1	15.53.37,19	3,464	
428	B.A.C. 5333.....	25	7¾	-1,86		109.16	1	15.57.5,82	3,472	
429	H. C. 29306.....	17	8½	-1,84		107.31	1	15.58.41,50	3,435	
430	H. C. 29372.....	24	8½	-1,87	42,00					
431	—	25	8	-1,87	42,05	109.3	3	16.0.42,04	3,471	
432	—	26	8½	-1,87	42,06					
433	Bessel xvi. 38.....	May 31		-1,71		103.36	1	16.2.42,96	3,353	
434	B.A.C. 5383.....	July 2	7.8	-1,87		109.3	1	16.3.19,55	3,474	No. 425. This is B.A.C. 5281, the R.A. of which is 20" greater, by an error in reducing from the H. C.
435	H. C. 29544.....	May 26		-1,59		93.40	1	16.5.36,32	3,146	
436	B.A.C. 5408.....	June 25	7	-1,87	3,85					
437	—	26	7¾	-1,87	3,76	108.9	2	16.6.3,80	3,456	
438	δ OPHIUCHI.....					93.18	14	16.6.32,51	3,138	
439	B.A.C. 5436.....	19	8	-1,90	24,58					
440	—	24	7	-1,91	24,66					
441	—	25	7½	-1,91	24,66	109.51	5	16.10.24,64	3,499	
442	—	26	7½	-1,91	24,64					
443	—	July 2	7	-1,90	24,66					
444	*.....	June 19	8½	-2,02		116.13	1	16.16.42,95	3,663	
445	χ Ophiuchi.....	Aug. 5		-1,66		108.7	1	16.18.23,63	3,466	
446	H. C. 29906.....	June 26	8	-2,02		115.7	1	16.19.11,08	3,638	
447	ANTARES.....					116.6	15	16.20.16,77	3,665	
448	ϕ Ophiuchi.....	May 15		-1,55	37,02					
449	—	Aug. 5		-1,66	36,92	106.17	2	16.22.36,97	3,426	
450	H. C. 30069.....	June 25	9	-2,02	51,43					
451	—	26	9½	-2,02	51,35	113.58	3	16.24.51,47	3,614	
452	—	July 2	9½	-2,02	51,64					
453	B.A.C. 5564.....	June 17	9	-2,03	57,67	115.46	2	16.30.57,73	3,668	No. 453 and 454. Lacaille's R.A. is about 4" greater.
454	—	July 2	8	-2,07	57,78					
455	B.A.C. 5573.....	June 19	8	-1,92	40,23					
456	—	21	8	-1,90	40,10	107.46	2	16.32.40,16	3,468	
457	B.A.C. 5579.....	May 15		-1,55		107.27	1	16.32.57,77	3,461	
458	H. C. 30381.....	June 17		-1,95		110.30	1	16.34.49,75	3,536	
459	γ Scorpii.....	19	8	-2,05	44,27					
460	—	July 2	7.8	-2,08	44,38	115.15	2	16.37.44,33	3,661	
461	H. C. 30544.....	June 28	8	-2,08		114.48	1	16.40.29,43	3,652	
462	H. C. 30609.....	19	9	-2,08		116.37	1	16.42.38,00	3,703	
463	H. C. 30675.....	17	10	-2,08	10,55					
464	—	28	9½	-2,13	10,60	117.19	2	16.45.10,58	3,725	
465	H. C. 30744.....	19	9½	-1,94		107.40	1	16.47.21,46	3,475	
466	H. C. 30809.....	17	9	-2,02		113.45	1	16.49.44,59	3,631	
467	H. C. 30887.....	19	9	-2,10		116.44	1	16.52.29,09	3,715	
468	H. C. 31000.....	19	8½	-1,96	46,59					
469	—	28	8½	-2,00	46,72	107.56	2	16.55.46,66	3,486	
470	H. C. 31126.....	28	8½	-2,10		113.48	1	16.59.54,49	3,640	
471	η Ophiuchi.....	July 10		-2,00		105.32	1	17.1.50,19	3,430	
472	H. C. 31255.....	June 28	8	-2,07		111.25	1	17.3.44,98	3,579	
473	H. C. 31337.....	28	8¼	-2,08		111.41	1	17.7.29,06	3,588	
474	α HERCULIS.....					75.26	8	17.7.51,34	2,732	
475	H. C. 31429.....	26	8	-2,03	45,50					
476	—	28	8½	-2,04	45,60	108.47	2	17.10.45,55	3,515	
477	ξ Ophiuchi.....	July 10		-2,10		110.57	1	17.12.4,65	3,571	
478	θ Ophiuchi.....	Aug. 7		-2,01	51,79					
479	—	Sept. 3		-1,60	(51,49)	114.51	1	17.12.51,79	3,677	
480	H. C. 31552.....	June 26	8¼	-2,05	7,01					No. 479. Not used for the concluded R.A. See the transit.
481	—	July 12	8¼	-2,09	7,10	110.4	3	17.14.7,01	3,549	
482	—	16	9	-2,09	6,93					
483	H. C. 31646.....	June 27	8.9	-2,03	38,15					
484	—	July 21	8	-2,05	38,22	108.8	2	17.16.38,19	+3,501	

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				s.	s.	° ' "		h. m. s.	s.	
485	<i>b</i> Ophiuchi.....	Aug. 7		-2.01		114. 2	1	17. 17. 16.55	+ 3,657	
486	B.A.C. 5896.....	July 12	7.8	-2.20	27.40	115. 23	2	17. 19. 27.30	3,695	Nos. 486 and 487. Of Mag. 7 in B.A.C.
487	—	16	8½	-2.19	27.19					
488	H. C. 31834.....	June 27	9	-2.03	17.91	107. 15	2	17. 22. 17.93	3,480	
489	—	July 21	8	-2.06	17.94					
490	H. C. 31955.....	21	7½	-2.08		108. 12	1	17. 25. 50.80	3,505	
491	<i>α</i> OPHIUCHI.....					77. 20	12	17. 28. 1.22	2,780	
492	H. C. 32045.....	21	8½	-2.20		114. 52	1	17. 28. 44.94	3,685	
493	H. C. 32119.....	June 27		-2.12		112. 58	1	17. 30. 53.53	3,633	
494	H. C. 32271.....	July 21	9	-2.10		107. 26	1	17. 34. 38.99	3,488	
495	7 Sagittarii.....	Aug. 28		-1.92		114. 17	1	17. 53. 43.41	3,674	
496	B.A.C. 6111.....	28		-1.93		114. 24	1	17. 56. 2.38	3,677	
497	<i>μ</i> ¹ SAGITTARII.....					111. 6	7	18. 4. 51.28	3,587	
498	B.A.C. 6217.....	18		-2.14	21.36					
499	—	19		-2.10	21.33					
500	—	21		-2.11	21.20	114. 59	4	18. 12. 21.24	3,693	
501	—	22		-2.10	21.05					
502	<i>λ</i> Sagittarii.....	Sept. 7		-2.29	46.38	115. 30	2	18. 18. 46.40	+ 3,706	
503	—	3		-1.95	46.42					
504	<i>δ</i> URSE MINORIS ..					3. 24	2	18. 20. 23.75	-19,302	
505	23 Sagittarii.....	13		-1.77	26.12					
506	—	15		-1.74	26.11	113. 21	3	18. 21. 26.14	+ 3,645	
507	—	17		-1.70	26.18					
508	H. C. 34428.....	Aug. 7	9	-2.22		109. 31	1	18. 28. 26.19	3,541	
509	B.A.C. 6343.....	Sept. 13		-1.82	27.02					
510	—	15		-1.78	26.98	113. 38	4	18. 29. 27.00	3,651	
511	—	17		-1.75	26.99					
512	—	20		-1.70	27.00					
513	H. C. 34749.....	13	8	-1.79		107. 42	1	18. 36. 57.05	3,492	
514	B.A.C. 6376.....	Aug. 7	6	-2.24		109. 45	1	18. 37. 13.29	3,544	
515	29 Sagittarii.....	Sept. 13	6	-1.83		110. 29	1	18. 40. 49.64	3,562	
516	<i>β</i> LYRÆ.....				56.48	56.48	11	18. 44. 34.73	2,213	
517	<i>σ</i> Sagittarii.....	3		-2.11		116. 29	1	18. 46. 1.25	3,723	
518	H. C. 35311.....	11	9½	-2.00	50.28	116. 23	2	18. 49. 50.25	3,718	Nos. 518 and 519. The R.A. of H.C. is about 0.7 less.
519	—	13	9½	-1.96	50.22					
520	B.A.C. 6485.....	13	7	-1.93		112. 54	1	18. 52. 38.75	3,621	
521	H. C. 35552.....	11	9	-1.91	28.84	107. 59	2	18. 55. 28.82	3,492	
522	—	13	9	-1.88	28.80					
523	<i>ο</i> Sagittarii.....	July 12		-2.26		111. 57	1	18. 55. 45.22	3,594	
524	<i>ζ</i> AQUILÆ.....				76.21	76.21	9	18. 58. 33.77	2,755	
525	H. C. 35773.....	Sept. 3		-2.06		108. 50	1	19. 0. 14.14	3,511	
526	<i>π</i> Sagittarii.....	July 12		-2.25		111. 15	1	19. 0. 54.13	3,572	
527	H. C. 35931.....	4	8½	-2.23	33.21	115. 55	2	19. 3. 33.14	3,696	
528	—	Sept. 11	9.10	-2.06	33.07					
529	H. C. 36005.....	3		-2.13		112. 12	1	19. 4. 55.54	3,594	No. 529. This is Argelander z. 230, No. 9. The N.P.D. of H. C. is 5' too great. The R.A. by the Camb. observation is about 1' less than the mean of the R.A. by H. C. and Argelander.
530	H. C. 36016.....	June 28	8	-2.08		112. 19	1	19. 5. 13.45	3,597	
531	H. C. 36104.....	July 4	8½	-2.16	2.27	112. 6	2	19. 7. 2.12	3,590	
532	—	5	8½	-2.17	1.96					
533	<i>d</i> Sagittarii.....	Sept. 13	6.7	-1.96		109. 13	1	19. 8. 54.89	3,516	
534	H. C. 36239.....	June 28	7½	-2.03		108. 58	1	19. 9. 47.65	3,509	
535	H. C. 36288.....	Sept. 9	9	-2.07		112. 27	1	19. 10. 48.85	3,597	
536	H. C. 36501.....	3		-2.10	12.50					
537	—	9	7.8	-2.03	12.75	107. 29	3	19. 15. 12.63	3,469	
538	—	13	8	-1.97	12.64					
539	H. C. 36504.....	July 4		-2.16		112. 51	1	19. 15. 21.31	3,604	
540	H. C. 36507.....	June 28	8½	-2.07		112. 54	1	19. 15. 28.25	3,605	
541	H. C. 36618.....	Sept. 9	8.9	-2.13		114. 20	1	19. 17. 56.24	3,641	
542	H. C. 36657.....	13	8.9	-2.02		110. 39	1	19. 18. 47.33	3,545	
543	B.A.C. 6666.....	June 28	7	-2.12	39.05					
544	—	July 4	7	-2.22	38.93	117. 17	3	19. 20. 38.98	3,718	
545	—	Sept. 3		-2.27	38.96					
546	H. C. 36798.....	9		-2.15		114. 15	1	19. 21. 53.86	3,635	No. 546. H. C. 36798 and 36799 are the same star.
547	H. C. 36814.....	13	9	-2.09		114. 24	1	19. 22. 10.01	3,639	
548	H. C. 36961.....	June 28	8	-1.98	25.64					
549	—	Sept. 13	8.9	-2.00	25.63	106. 36	2	19. 25. 25.64	3,442	
550	<i>h</i> ¹ Sagittarii.....	July 12		-2.28	58.79					
551	—	Sept. 9	7½	-2.18	58.63	115. 3	2	19. 26. 58.71	3,651	
552	53 Sagittarii.....	13	6.7	-2.12		113. 46	1	19. 30. 52.05	3,614	No. 552. The south-following star, B.A.C. 6727, was considered to be of equal magnitude.
553	H. C. 37238.....	3		-2.32	34.78					
554	—	9	8.9	-2.24	34.78	118. 2	2	19. 31. 34.78	+ 3,726	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of R.A. Jan. 1, 1851, as observed.	Approximate N.P.D. Jan. 1, 1851.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1851.	Annual Variation.	Notes.
				s.	s.	o /		h. m. s.	s.	
555	ϵ^2 Sagittarii	Sept. 12	7	-2.05	59.71	106.28	2	19.33.59.71	+3.433	
556	.....	13	5	-2.04	59.70					
557	H. C. 37399.....	9	9	-2.26		118.0	1	19.35.8.94	3.721	
558	H. C. 37481.....	3		-2.45		117.38	1	19.37.7.98	3.709	
559	H. C. 37491.....	13	8.9	-2.16		115.14	1	19.37.23.16	3.645	
560	γ AQUILÆ.....					79.45	15	19.39.10.58	2.855	
561	H. C. 37642.....	13	8 $\frac{3}{4}$	-2.16		114.5	1	19.40.59.19	3.611	
562	α AQUILÆ.....					81.31	27	19.43.30.80	2.929	
563	β AQUILÆ.....					83.58	15	19.47.59.68	2.950	
564	g Sagittarii.....	24		-1.94		105.53	1	19.49.29.67	3.408	No. 564. After this observation an attempt was made to observe H. C. 38220, but nothing was seen except a star at the bottom of the field. On using it in 1856 for a comparison star its N.P.D. was found to be 7' too great.
565	B.A.C. 6878.....	3		-2.32		113.2	1	19.54.54.14	3.569	
566	B.A.C. 6914.....	3		-2.31	50.79	111.1	2	20.0.50.70	3.515	
567	.....	24	8	-2.04	50.61					
568	H. C. 38765.....	3		-2.28		107.18	1	20.6.43.88	3.425	
569	α^2 CAPRICORNI.....					103.0	8	20.9.47.12	3.335	
570	H. C. 38932.....	24	9	-2.05		108.19	1	20.10.11.74	3.444	
571	H. C. 39095.....	24	8	-2.05		106.16	1	20.13.56.71	3.396	
572	Bessel xx. 419.....	3		-2.28		104.36	1	20.17.11.33	3.358	
573	H. C. 39259.....	24	8	-2.12		111.18	1	20.18.10.27	3.500	
574	B.A.C. 7070.....	24	9	-2.16		112.40	1	20.23.31.94	3.523	
575	H. C. 39603.....	24	8	-2.10		106.18	1	20.26.26.55	3.384	No. 574. Considered to be fainter than B.A.C. 7069.
576	B.A.C. 7115.....	3		-2.34		107.38	1	20.29.22.10	3.409	
577	B.A.C. 7151.....	Aug. 30		-2.38		107.54	1	20.32.52.25	3.410	
578	H. C. 39981.....	Sept. 24	8	-2.17		109.53	1	20.35.23.13	3.447	
579	ψ Capricorni.....	Oct. 4		-2.10		115.43	1	20.37.15.87	3.571	
580	H. C. 40073.....	Sept. 24	8	-2.18		109.59	1	20.38.5.96	3.446	
581	Bessel xx. 1051....	24	8 $\frac{1}{2}$	-2.15		105.27	1	20.40.49.84	3.353	
582	H. C. 40197.....	Aug. 30		-2.38		106.4	1	20.42.15.34	3.363	
583	H. C. 40311.....	Sept. 24	7	-2.20		109.41	1	20.45.2.37	3.430	
584	H. C. 40488.....	24	10	-2.25		111.55	1	20.49.38.30	3.468	
585	H. C. 40687.....	4		-2.38		106.8	1	20.54.16.57	3.351	
586	H. C. 40684.....	24	7	-2.24		109.50	1	20.54.16.80	3.420	
587	Bessel xx. 1419....	Aug. 30		-2.37		103.26	1	20.55.25.96	3.301	
588	Bessel xx. 1486....	Sept. 24	9	-2.19		103.36	1	20.58.11.88	3.301	
589	Bessel xx. 1499....	Aug. 30		-2.39		104.31	1	20.58.53.45	3.317	
590	Bessel xx. 1541....	Sept. 3		-2.38		104.26	1	21.0.20.80	3.314	
591	ν Aquarii.....	Nov. 1		-1.65		101.59	1	21.1.28.73	3.270	
592	29 Capricorni.....	Aug. 11		-2.36	29.75					
593	.....	Nov. 1		-1.71	29.85	105.47	2	21.7.29.80	3.329	
594	.....	10	5.6	-1.56	(29.34)					
595	Bessel xxi. 252....	Sept. 3		-2.40		104.39	1	21.11.37.12	3.305	No. 594. Not used in calculating the concluded R.A. being too discordant.
596	ι Capricorni.....	Aug. 11		-2.38		107.28	1	21.13.56.69	3.349	
597	H. C. 41544.....	30		-2.37		102.42	1	21.15.35.65	3.269	
598	Bessel xxi. 357....	Nov. 10	8.9	-1.58		101.20	1	21.15.41.71	3.247	
599	Bessel xxi. 418....	10	7	-1.60		102.44	1	21.18.19.11	3.267	
600	Bessel xxi. 495....	10	8	-1.62		102.44	1	21.21.23.39	3.263	
601	β AQUARIÏ.....					96.13	17	21.23.42.79	3.168	
602	H. C. 42108.....	Sept. 13		-2.36		101.34	1	21.30.7.65	3.237	
603	Bessel xxi. 717....	3		-2.41		102.43	1	21.30.12.87	3.254	
604	Bessel xxi. 818....	Aug. 30		-2.41		102.56	1	21.33.56.63	3.253	
605	Bessel xxi. 830....	Sept. 3		-2.39	32.80					
606	.....	Oct. 8	8	-2.13	32.82	99.9	2	21.34.32.81	3.198	
607	Bessel xxi. 861....	7	8.9	-2.34	32.66					
608	.....	Nov. 18	9	-1.58	32.72	101.49	2	21.35.32.69	3.236	
609	Bessel xxi. 902....	Oct. 8	9.10	-2.18		104.22	1	21.37.12.21	3.271	
610	H. C. 42429.....	7	8 $\frac{1}{4}$	-2.16	45.93					
611	.....	Nov. 18	8	-1.58	46.00	99.8	2	21.38.45.97	3.195	
612	δ Capricorni.....	1		-1.86	48.82					
613	.....	29		-1.46	48.85	106.48	2	21.38.48.83	3.304	
614	Bessel xxi. 954....	Sept. 13	9	-2.37		100.27	1	21.39.29.24	3.213	
615	Bessel xxi. 988....	Oct. 8	9	-2.19	21.68					
616	.....	Nov. 18	7.3	-1.62	21.67	104.17	2	21.41.21.68	3.264	
617	Bessel xxi. 1025....	Oct. 7	7 $\frac{1}{2}$	-2.18		98.36	1	21.43.8.80	3.184	
618	Bessel xxi. 1036....	Sept. 12	9	-2.37		98.6	1	21.43.41.00	3.177	
619	Bessel xxi. 1060....	Oct. 8	9	-2.21		104.38	1	21.44.43.18	3.265	
620	μ Capricorni.....	Nov. 29		-1.48		104.15	1	21.45.10.09	3.259	
621	B.A.C. 7620.....	Aug. 30		-2.40		101.2	1	21.45.37.72	3.215	No. 622. Bessel's R.A. is about 1' greater. By comparison with a Transit observation on Oct. 21, 1856, it was ascertained that the R.A. from the observation of 1851 is 1' in defect. The correct R.A. is therefore 21 ^h . 47 ^m . 0 ^s . 50.
622	Bessel xxi. 1106....	Sept. 12	8 $\frac{1}{4}$	-2.41		102.41	1	21.46.59.50	3.236	
623	Bessel xxi. 1137....	Oct. 7	8	-2.20	28.37					
624	.....	8	7 $\frac{3}{4}$	-2.19	28.45	100.18	2	21.48.28.41	+3.203	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean R.A.	Seconds of R.A. Jan. 1, 1851, as observed.	Approximate N.P.D. Jan. 1, 1851.	Number of Obs.	Concluded Mean R.A. Jan. 1, 1851.	Annual Variation.	Notes.
				s.	s.	° ' "		h. m. s.	s.	
625	Bessel XXI. 1146...	Sept. 13	8.9	-2.41		104. 4	1	21. 48. 51.20	+ 3,252	
626	Bessel XXI. 1173...	3		-2.41		101. 25	1	21. 50. 1.32	3,216	
627	H. C. 42806.....	Aug. 30		-2.42		103. 45	1	21. 50. 21.40	3,246	
628	Bessel XXI. 1206...	Sept. 12	9.10	-2.42	15.73					
629	—	Oct. 7	9	-2.22	15.65	103. 41	3	21. 51. 15.74	3,244	
630	—	8	9.10	-2.22	15.85					
631	Bessel XXI. 1256...	Sept. 13	8.9	-2.38		96. 56	1	21. 53. 45.95	3,156	
632	29 Aquarii.....	12	7.8	-2.45		107. 41	1	21. 54. 17.00	3,293	
633	α Aquarii.....					91. 3	14	21. 58. 7.84	3,083	
634	Bessel XXII. 192...	Aug. 30		-2.42		102. 59	1	22. 9. 40.40	3,213	
635	Bessel XXII. 357...	30		-2.41	53.81					
636	—	Oct. 10	8.9	-2.28	53.97	102. 9	2	22. 16. 53.89	3,196	
637	Bessel XXII. 415...	Aug. 30		-2.41	31.81					
638	—	Oct. 8	8	-2.31	31.74	103. 2	3	22. 19. 31.84	3,202	
639	—	10	8	-2.30	31.98					
640	σ Aquarii.....	Aug. 26		-2.39		101. 27	1	22. 22. 45.30	3,182	
641	Bessel XXII. 517...	Oct. 4	9	-2.34	36.45					
642	—	10	8.9	-2.30	36.37	99. 3	2	22. 24. 36.41	3,157	
643	Bessel XXII. 588...	Aug. 14	8.9	-2.25	4.01					
644	—	Oct. 8	10	-2.34	3.93	102. 23	3	22. 28. 3.98	3,185	No. 644. Circumstances unfavorable for the estimation of magnitude.
645	—	10	8	-2.32	3.99					
646	Bessel XXII. 672...	Aug. 14	9	-2.24		100. 22	1	22. 31. 37.25	3,163	
647	B.A.C. 7892. np....	Oct. 10	8.9	-2.34		103. 23	1	22. 31. 37.81	3,190	
648	ζ Pegasi.....	Aug. 26		-2.37		79. 57	1	22. 34. 1.75	2,990	
649	Bessel XXII. 752...	14	8	-2.23		99. 54	1	22. 35. 10.47	3,155	
650	τ² Aquarii.....	Sept. 8		-2.46	42.03					
651	—	9		-2.46	41.98	104. 23	3	22. 41. 42.04	3,186	
652	—	Nov. 3		-2.12	42.10					
653	H. C. 44661.....	Sept. 12	8.9	-2.47		104. 51	1	22. 42. 30.05	3,188	No. 653. This is Bessel XXI. 887. See the note to No. 823, p. 223.
654	Bessel XXII. 961...	Oct. 10	8	-2.35		93. 6	1	22. 45. 50.49	3,094	
655	δ Aquarii.....	Sept. 8		-2.46	44.31					No. 654. Bessel's R.A. is about 1½ less. See the note to No. 829, p. 223.
656	—	9		-2.46	44.43	106. 37	3	22. 46. 44.35	3,196	
657	—	Nov. 3		-2.15	44.30					
658	Bessel XXII. 981...	Sept. 12	8.9	-2.45		100. 10	1	22. 47. 7.41	3,146	
659	B.A.C. 7993.....	Oct. 10	7	-2.37		95. 36	1	22. 49. 34.43	3,110	
660	Bessel XXII. 1110...	10	9	-2.37		93. 1	1	22. 52. 55.77	3,091	
661	α PEGASI.....					75. 36	24	22. 57. 20.53	2,983	
662	H. C. 45222.....	10	8	-2.41		100. 29	1	22. 59. 55.85	3,135	
663	Bessel XXII. 1292...	Dec. 17	9.10	-1.67		101. 30	1	23. 1. 20.20	3,140	
664	Bessel XXIII. 38...	Oct. 10	8½	-2.40		90. 23	1	23. 3. 13.10	3,073	
665	Bessel XXIII. 60...	Dec. 17	10	-1.69		95. 38	1	23. 4. 9.68	3,102	No. 665. Bessel's R.A. is 10" too great. See the note to No. 845, p. 224.
666	Bessel XXIII. 103...	Oct. 10	7½	-2.42		99. 44	1	23. 6. 17.05	3,124	
667	φ Aquarii.....	7		-2.43		96. 51	1	23. 6. 36.33	3,108	No. 666. The R.A. is 1" greater than Bessel's and about 2" greater than that of H. C. 45455, which is the same star. Has the star proper motion? The R.A. of 1851 is confirmed by a Transit observation taken on Oct. 21, 1856.
668	ψ³ Aquarii.....	Sept. 10		-2.43	12.59					
669	—	Oct. 7		-2.44	12.59	100. 25	2	23. 11. 12.59	3,123	
670	Bessel XXIII. 325...	10	9	-2.44		92. 8	1	23. 16. 6.94	3,080	
671	Bessel XXIII. 409...	10	8	-2.45		93. 16	1	23. 20. 28.40	3,084	
672	Bessel XXIII. 486...	10	8½	-2.46		89. 36	1	23. 24. 7.95	3,069	
673	Bessel XXIII. 550...	10	8	-2.47		91. 9	1	23. 26. 50.59	3,075	
674	B.A.C. 8221.....	Nov. 3		-2.32	55.97					
675	—	4		-2.31	55.92	103. 51	2	23. 29. 55.95	3,114	
676	B.A.C. 8239.....	3		-2.32		102. 30	1	23. 33. 26.09	3,105	
677	27 Piscium.....	Sept. 11		-2.40	2.81					
678	—	Oct. 7		-2.52	2.79	94. 23	3	23. 51. 2.78	3,075	
679	—	8		-2.52	2.75					
680	H. C. 47030.....	Nov. 24	8	-2.22		92. 41	1	23. 51. 55.66	3,073	
681	Bessel XXIII. 1143...	24	8.9	-2.25		88. 42	1	23. 55. 8.66	3,070	
682	33 Piscium.....	Sept. 11		-2.45	42.60					
683	—	Oct. 7		-2.53	42.52	96. 32	3	23. 57. 42.53	+ 3,072	
684	—	8		-2.52	42.47					

APPARENT NORTH POLAR DISTANCES

OBSERVED WITH THE

MURAL CIRCLE

IN THE YEAR 1851.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for S.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
Jan. 4	☉ S.L.	1.25,3	33,3	38,3	32,8	38,0	29,6	+8,0	10,018		141.36.32,90	29,790	47,3	45,7	218,01	113.2.3,23	B.
	☉ N.L.	3.58,1	67,3	70,2	67,0	67,4	61,0		10,018		141.4.4,22				210,20	112.29.26,74	B.
Jan. 6	☉ N.L.	0.14,5	26,5	25,7	23,9	26,3	20,1		8,902	+1	140.50.45,84	29,568	41,6	36,9	209,47	112.16.7,63	B.
	(a) ☉ S.L.	2.47,8	58,5	59,9	55,4	59,0	51,0		8,902	+2	141.23.18,86				217,18	112.48.48,36	B.
	(b) ☉ S.L.	3.44,0	52,6	57,0	50,9	54,2	45,8		9,788	-1	132.48.55,05	29,580	43,7	39,0	134,21	104.13.1,58	B.
	☉ S.L. ....	...	...	...	...	...	...		9,756		132.48.56,85					104.13.3,38	B.
	☉ S.L. ....	...	...	...	...	...	...		9,830	+1	132.48.56,37					104.13.2,90	B.
	Zenith Point ...	0.43,5	52,3	54,5	49,2	51,5	47,2		11,643		66.25.15,68						B.
Jan. 8	(c) H. C. 7362	4.40,0	49,8	51,1	44,3	50,4	43,3			+1	97.44.46,49	29,281	45,2	43,8	35,18	69.7.13,99	B.
	(c) H. C. 7661	4.17,5	27,7	28,9	22,3	29,5	21,4				95.9.24,40				31,70	66.31.48,42	B.
	Bessel iv. 65. ...	2.27,2	36,0	40,1	34,4	38,7	29,8			+2	104.22.35,22				45,08	75.45.12,62	B.
	(c) H. C. 9517	4.56,6	65,9	66,9	62,5	67,9	60,0				100.35.3,30	29,291	44,2	42,9	39,31	71.57.34,93	B.
Jan. 9	(c) ☉ S.L.	4.27,0	39,3	39,1	34,3	40,7	32,9		8,841	+1	140.59.59,65	29,834	42,2	42,7	210,89	112.25.22,94	B.
	☉ N.L.	1.58,8	69,0	71,4	66,8	71,0	62,2		8,841	+1	140.27.31,30				203,60	111.52.47,30	B.
	33 Piscium.	3.56,6	64,0	71,4	64,5	66,9	59,0			+2	125.9.4,72	29,949	42,1	38,5	98,16	96.32.35,28	B.
	12 Ceti.	3.28,7	35,9	42,2	35,0	39,9	31,1			+2	123.23.36,35				91,73	94.47.0,48	B.
	(d) ☉ S.L.	0.54,9	64,1	66,4	62,3	66,2	58,9			-2	120.40.56,30	29,964	40,8	36,6	83,29	92.4.11,99	B.
	☉ S.L. ....	...	...	...	...	...	...		10,163	-1	120.40.55,96					92.4.11,65	B.
	☉ S.L. ....	...	...	...	...	...	...		10,313		120.40.55,89					92.4.11,58	B.
	☉ S.L. ....	...	...	...	...	...	...		10,518	+1	120.40.54,67					92.4.10,36	B.
	☉ S.L. ....	...	...	...	...	...	...		10,658	+2	120.40.54,79					92.4.10,48	B.
	ε Piscium.	2.7,0	14,9	20,1	13,1	17,4	10,0		10,658		111.32.0,66				60,23	82.54.53,29	B.
	ε Piscium.	0.25,2	34,3	37,0	31,6	36,9	30,2				113.45.32,68				65,09	85.8.30,17	B.
	(e) Bessel i. 732.	3.7,2	13,2	19,8	13,7	17,3	9,3				105.18.14,28	29,968	40,4	35,8	48,49	76.40.55,17	B.
	H. C. 9854.	1.23,8	31,4	36,2	29,8	34,2	27,8				102.26.30,93	30,000	37,1	32,0	44,12	73.49.7,45	B.
	H. C. 10080.	1.9,3	17,0	21,3	13,1	18,3	11,5				98.46.15,43				38,44	70.8.46,27	B.
	(c) H. C. 10252.	4.26,3	34,0	37,0	30,2	36,4	28,9				102.19.32,02				43,94	73.42.8,36	B.
	Pollux R.	0.28,9	37,4	39,2	33,2	38,3	32,6		9,866		222.35.37,87	30,018	36,8	31,7	26,84	61.37.12,57	B.
	(f) (c) Pollux.	4.43,6	51,3	55,0	46,4	53,3	44,9		9,866	+2	90.14.52,14					61.37.11,38	B.
Jan. 13	(g) Zenith Point.	4.37,5	48,4	47,5	44,0	47,6	42,5		8,508		66.25.15,60						B.
Jan. 14	(h) Aldebaran R. ...	4.16,5	23,0	28,3	23,2	25,8	17,7		7,469	+3	210.25.15,94	29,293	44,8	42,3	42,14	73.47.49,80	B.
	Aldebaran.	4.11,8	18,6	23,7	17,9	20,8	13,3		7,469	+4	102.25.12,28					73.47.46,82	B.
	(i) ☉ S.L.	0.11,6	20,0	22,6	15,4	21,6	13,7		7,469	+1	100.46.12,08				49,90	72.8.54,38	B.
Jan. 15	(c)(k) 31 Arietis.	4.20,9	32,0	32,3	26,7	33,8	26,4				106.49.28,55	29,248	47,0	45,8	48,92	78.12.9,87	B.
Jan. 17	☉ N.L.	2.3,1	13,6	15,5	11,7	15,9	8,4	+8,5	10,737	+1	139.6.56,72	29,575	47,5	47,3	183,90	110.31.52,91	B.
	(c) ☉ S.L.	4.32,0	43,8	41,9	39,4	44,7	37,0		10,737	+1½	139.39.24,43				190,06	111.4.26,78	B.
Jan. 18	☉ S.L.	2.7,3	17,0	19,6	14,9	18,8	10,8		9,444		139.27.26,97	29,943	44,8	44,3	191,27	110.52.30,53	B.
	(c)(l) ☉ N.L.	4.37,3	50,9	48,4	45,7	50,0	43,1		9,444		138.54.57,44				185,12	110.19.54,85	B.
	Bessel ii. 271. ...	3.51,3	56,8	63,6	56,8	59,6	51,7				105.53.57,75	30,016	43,3	36,5	49,53	77.16.39,57	B.
	β Persei R.	3.41,2	48,2	52,7	46,3	50,5	44,2		5,618		234.35.19,60	30,020	42,0	36,3	12,61	49.37.16,72	B.
	(m) β Persei.	3.31,3	36,6	43,8	34,8	41,3	32,4		5,618	+2½	78.15.9,85					49.37.14,75	B.
	H. C. 6032.	2.55,2	60,0	66,8	57,6	63,8	54,8				96.3.0,55				34,21	67.25.27,05	B.
	(n) Rigel R.	3.53,9	60,4	66,6	60,2	63,3	56,3		3,483		185.51.17,07	30,040	41,1	35,7	106,54	98.22.53,18	B.
	Rigel.	1.49,4	58,3	62,5	54,9	58,9	52,5		3,483	+4	126.59.12,12					98.22.50,95	B.
	(o) H. C. 10080.	1.11,0	17,6	21,8	14,4	18,4	12,8				98.46.16,37				38,20	70.8.46,86	B.
	(p) ☉ S.L.	3.52,0	57,7	65,3	56,8	60,1	51,2			-2	102.54.3,48	30,047	41,8	38,8	44,30	74.16.40,07	B.
	☉ S.L. ....	...	...	...	...	...	...		9,908	-1	102.54.2,76					74.16.39,35	B.
	☉ S.L. ....	...	...	...	...	...	...		9,780		102.54.2,88					74.16.39,47	B.
	☉ S.L. ....	...	...	...	...	...	...		9,695	+1	102.54.2,20					74.16.38,79	B.
	☉ S.L. ....	...	...	...	...	...	...		9,601	+2	102.54.1,80					74.16.38,39	B.

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Slip of Circle, bisection repeated. (b) Extremely faint from cloud. (c) Negative correction for Runs. (d) Unsteady. (e) Faint from cloud: the observation doubtful. (f) Very steady. (g) The correction for Runs is assumed to be negative: no note was made. (h) Cloudy and the mercury unsteady. (i) Dense cloud: very doubtful observation. (k) Further observation interrupted by cloud. (l) Waving. (m) Blazing. (n) The mercury very tremulous. (o) Faint: the sky misty. (p) Faint and cloudy. The Limb was full, but very uneven; the extreme illuminated point was bisected.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						Inch.	"		"	"	"	
Jan. 20	Zenith Point....	0. 6,7	14,4	15,4	9,9	14,6	10,7	+8,5	9,822		66.25.15,71								B.
Jan. 21	☉ N.L.....	0. 9,7	21,6	21,1	16,1	21,6	14,8		5,083	+2 $\frac{1}{2}$	138.17.0,13	29,410	45,8	46,6	174,38	109.41.46,80			B.
	☉ S.L.....	2.35,8	47,5	48,6	44,1	46,1	40,3		5,083	+2 $\frac{1}{2}$	138.49.27,04				179,99	110.14.19,34			B.
Jan. 22	(a) ☉ S.L.....	4.54,1	64,1	64,9	60,2	63,3	59,0		7,217		138.35.58,93	29,849	43,0	42,7	181,75	110.0.52,97			T.
	☉ N.L.....	2.27,3	37,2	39,0	33,0	38,0	32,0		7,217		138.3.33,15				176,15	109.28.21,59			T.
	(a)(b) Aldebaran R....	4.19,7	23,9	29,9	23,0	29,3	23,7		7,396		210.25.19,85	30,090	38,6	36,9	43,77	73.47.47,63			T.
	(a) Aldebaran.....	4.13,1	22,9	22,1	16,9	22,0	17,5		7,396		102.25.13,17					73.47.49,23			T.
	H. C. 8869.....	2.56,5	60,9	69,1	58,9	63,7	57,1				95.58.1,88				34,16	67.20.28,33			T.
	(c) Aurigæ R.....	2.11,1	18,0	21,8	15,5	18,7	15,1		7,364		227.8.12,29				21,09	57.4.32,51			T.
	Aurigæ.....	1.17,9	23,2	27,1	19,4	23,8	19,1		7,364		85.42.17,09					57.4.30,47			T.
	H. C. 9411.....	1.13,6	20,9	24,4	16,9	19,8	15,9				103.6.18,95				44,88	74.28.56,12			T.
	(d) * α 4 ^h 57 ^m . 21 ^s .	3.52,2	55,1	64,7	54,1	58,7	52,2				100.38.57,28	30,110	38,3	36,6	41,04	72.1.30,61			T.
	H. C. 9872.....	2.3,6	6,8	15,0	4,9	9,7	4,3				90.42.7,98				27,22	62.4.27,49			T.
	H. C. 10007.....	1.9,9	14,1	20,6	11,1	17,1	12,0				89.41.14,48				25,95	61.3.32,72			T.
	H. C. 10156.....	4.6,6	8,9	18,1	7,2	11,7	6,0				91.9.10,93				27,80	62.31.31,02			T.
	H. C. 15325.....	0.31,0	36,0	41,5	32,0	36,1	32,1				91.40.34,93	30,152	36,6	35,1	28,60	63.2.55,82			T.
	B.A.C. 2658.....	3.30,4	34,1	43,9	34,7	37,0	33,9				99.58.36,68				40,20	71.21.9,17			T.
	B.A.C. 2683.....	1.58,1	62,3	68,0	60,9	62,5	58,0				99.22.2,37				39,28	70.44.33,94			T.
	12 Cancri.....	3.8,0	12,0	19,4	10,0	13,0	8,1				104.33.12,65				47,56	75.55.52,50			T.
	H. C. 16099.....	0.51,3	56,8	62,1	53,4	57,6	52,3				97.5.55,90				35,96	68.28.24,15			T.
	(e) Metis.....	4.42,0	48,6	51,3	43,6	48,6	42,9				96.19.46,10	30,180	36,0	34,2	34,96	67.42.13,35			T.
Jan. 23	(a)(f) ☉ N.L.....	4.36,9	47,0	46,9	41,1	45,2	40,1				137.49.42,77	30,280	42,0	40,1	177,31	109.14.32,37			T.
	(g) H. C. 14393.....	0.28,0	32,7	39,5	28,9	33,6	28,3				97.50.31,97	30,262	35,2	32,1	37,40	69.13.1,66			T.
	H. C. 14556.....	0.6,0	9,9	15,0	6,0	11,1	6,4				98.30.9,12				38,37	69.52.39,78			T.
	H. C. 14771.....	3.11,1	13,0	22,0	11,2	15,1	9,4				97.48.14,57				37,34	69.10.44,20			T.
	H. C. 14794.....	...	...	...	...	...	...		8,402		97.48.47,87				37,35	69.11.17,51			T.
	(h) Metis.....	2.34,9	38,1	47,6	36,9	41,1	33,6				96.12.39,48	30,244	34,5	30,8	35,12	67.35.6,84			T.
Jan. 24	☉ S.L.....	2.59,0	46,0	50,5	44,1	46,3	40,9		9,340		138.7.59,00	30,140	39,0	38,4	180,23	109.32.51,52			T.
	☉ N.L.....	0.14,5	24,3	27,0	19,8	25,0	16,9		9,340		137.35.35,12				174,80	109.0.22,21			T.
	H. C. 14771.....	3.10,0	13,0	20,9	11,0	16,1	8,1				97.48.14,10	29,990	35,1	31,4	37,06	69.10.43,45			T.
	H. C. 14794.....	...	...	...	...	...	...		8,381	+1	97.48.47,89				37,07	69.11.17,25			T.
	(i) 82 Geminorum.....	2.15,4	19,8	26,0	17,9	21,2	15,5				95.7.19,97				33,27	66.29.45,53			T.
	H. C. 15325.....	0.29,9	35,0	39,7	30,2	36,0	30,0				91.40.33,63				28,67	63.2.54,59			T.
	(k) 1 Cancri.....	1.21,5	28,1	31,1	25,0	28,9	23,1				102.26.26,70				44,16	73.49.3,15			T.
	B.A.C. 2658.....	3.28,0	32,7	42,1	31,1	34,0	27,8				99.58.33,63				40,29	71.21.6,21			T.
	(l) H. C. 15834.....	2.36,7	42,0	48,0	39,4	42,1	36,0				103.2.41,47	29,989	35,9	31,5	45,14	74.25.18,90			T.
	B.A.C. 2748.....	0.41,1	48,0	51,4	45,1	47,0	40,9				104.10.45,80				47,03	75.33.25,12			T.
	(a)(m) H. C. 16172.....	4.20,0	27,0	30,5	22,9	27,0	22,9				96.59.24,88				35,88	68.21.53,05			T.
	Metis.....	0.27,1	32,2	37,0	28,0	34,7	27,5			+1 $\frac{1}{4}$	96.5.31,43	29,970	34,5	29,5	34,73	67.27.53,45			T.
Jan. 27	☉ N.L.....	1.26,2	36,0	39,0	33,0	37,6	31,0	+10,8	11,632		136.51.0,37	29,850	45,2	43,9	164,26	108.15.36,18			T.
	☉ S.L.....	3.52,1	58,0	65,2	56,5	61,0	52,9		11,632		137.23.25,01				169,21	108.48.5,77			T.
	Bessel II. 190 ...	0.14,5	24,0	25,8	19,0	25,0	16,1		9,179		111.50.37,98	29,910	40,6	36,4	60,80	83.13.30,33			T.
	Bessel II. 196 ...	...	...	...	...	...	...				111.50.20,87				60,79	83.13.13,21			T.
	Bessel II. 319 ...	0.16,3	25,0	27,7	21,3	26,4	20,0				106.50.22,93				51,04	78.13.5,52			T.
	(a)(n) H. C. 4660.....	4.37,6	45,0	47,0	41,2	46,4	39,0				101.44.42,60				42,48	73.7.16,63			T.
	Bessel II. 451 ...	2.59,6	65,1	70,2	62,4	66,9	60,0				106.8.5,15				49,78	77.30.46,48			T.
	H. C. 4925.....	2.20,7	28,3	32,6	25,0	30,9	23,0				102.32.27,63				43,75	73.55.2,93			T.
	α Arietis.....	1.39,9	47,1	51,1	44,8	50,6	42,4				103.56.46,62				46,04	75.19.24,21			T.
	H. C. 12990.....	0.35,9	41,0	45,9	37,0	44,1	36,0				92.10.40,22	29,878	36,9	34,0	29,05	63.33.0,82			T.
	H. C. 13194.....	1.17,9	23,1	28,3	19,0	25,9	20,5				92.41.22,97				29,71	64.3.44,23			T.
	B.A.C. 2265.....	1.55,0	59,6	67,0	57,1	64,0	55,9				100.42.0,48				41,03	72.4.33,06			T.
	(a) ζ Geminorum R....	4.41,0	48,0	49,1	43,6	49,0	43,3		9,520		214.59.55,57				36,78	9.13.5,66			T.
	ζ Geminorum.....	0.17,8	23,6	28,0	19,2	24,4	18,1		9,520		97.50.32,00					69.13.0,33			T.
	H. C. 15758.....	0.43,3	49,8	54,1	46,2	51,0	44,3			+2	102.35.48,54				44,01	73.57.24,10			T.

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Negative correction for Runs. (b) Too much wind. (c) The mercury much disturbed. (d) Taken by mistake for H. C. 9517.
 (e) 'Satisfactory observation.' (f) The observer, mistaking the time, was too late to prepare for observing both limbs. (g) 'The south-preceding taken.' The other is H. C. 14391. (h) 'Good.' (i) Badly defined. (k) No definition: the night unfavorable. (l) 'Not good.'
 (m) 'A brighter star of less N.P.D. preceded.' (n) The pointer reading has been diminished 8'.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"		r.		"	Inch.	"	"		"	
Jan. 27	H. C 13931.....	1. 2,0	7,2	13,0	3,3	9,0	2,0	+10,8			90. 36. 6,48	29,878	36,9	34,0	27,03	61. 58. 25,06	T.
	(a)(b) Metis.....	4. 20,8	25,6	29,1	20,3	28,7	21,0		10,066		95. 44. 22,65	29,800	38,1	37,1	33,50	67. 6. 47,70	T.
Jan. 28	(c) S.L.....	2. 19,4	25,9	29,0	22,9	26,3	21,1		8,622	+2	137. 7. 53,88	29,728	43,0	45,3	165,64	108. 32. 31,07	T.
	(b) N.L.....	4. 53,9	61,8	62,9	57,8	61,8	58,0		8,622	+2 3/4	136. 35. 28,21				160,86	108. 0. 0,62	T.
	(d) Metis.....	2. 21,1	26,2	32,0	22,8	29,4	21,8				95. 37. 26,42	29,650	40,8	38,1	33,11	66. 59. 51,08	T.
Jan. 30	S.L.....	0. 30,6	40,0	40,1	37,0	40,4	35,0		9,332		136. 35. 51,35	29,443	43,1	41,9	160,51	108. 0. 23,41	T.
	N.L.....	3. 5,4	13,1	17,0	10,3	12,5	6,0		9,332		136. 3. 25,79				155,96	107. 27. 53,30	T.
Jan. 31	Zenith Point....	0. 28,5	35,7	38,3	32,4	35,9	31,8		10,840		66. 25. 16,45						T.
Feb. 1	(b) N.L.....	4. 52,9	61,4	62,0	57,6	61,5	54,8		9,622		135. 30. 6,25	29,432	39,3	37,1	153,00	106. 54. 30,80	T.
	S.L.....	2. 16,4	24,5	27,9	19,3	24,2	18,6		9,622		136. 2. 30,56				157,36	107. 26. 59,47	T.
Feb. 4	S.L.....	0. 6,4	15,1	16,9	11,1	15,3	10,0		9,977		135. 10. 13,03	29,803	41,9	41,9	150,78	106. 34. 35,36	T.
	N.L.....	2. 43,5	49,8	56,1	47,7	52,8	47,0		9,977		134. 37. 50,98				146,75	106. 2. 9,28	T.
	(b) H. C. 7362.....	4. 39,4	45,3	47,9	41,5	46,3	40,8				97. 44. 43,43	29,906	37,1	34,1	36,66	69. 7. 11,64	T.
	(b) H. C. 7580.....	3. 42,0	48,1	50,6	43,9	49,1	43,3				93. 18. 45,73				30,56	64. 41. 7,84	T.
	H. C. 7712.....	2. 24,3	28,1	35,5	28,0	32,6	25,4				95. 2. 29,87				32,88	66. 24. 54,30	T.
	H. C. 7904.....	0. 36,8	42,0	47,1	40,0	45,5	37,9				94. 55. 41,80				32,72	66. 18. 6,07	T.
	H. C. 7999.....	1. 16,9	21,7	26,2	18,0	23,6	18,0				96. 11. 21,22				34,46	67. 33. 47,23	T.
	H. C. 8198.....	0. 46,9	51,5	55,8	48,8	53,2	46,0				96. 0. 50,65				34,21	67. 23. 16,41	T.
	B.A.C. 1373.....	0. 31,0	36,8	41,4	33,5	38,5	32,5				97. 20. 35,83				36,08	68. 43. 3,46	T.
	H. C. 8541.....	0. 48,0	53,0	59,0	49,4	55,2	48,9				99. 35. 52,55				39,38	70. 58. 23,48	T.
	H. C. 8917.....	2. 1,2	4,5	13,3	2,6	8,0	1,0				92. 52. 5,85	29,914	35,9	32,9	30,05	64. 14. 27,45	T.
	i Tauri.....	2. 32,6	38,0	47,0	36,3	42,4	34,2				100. 2. 39,35				40,17	71. 25. 11,07	T.
	H. C. 9250.....	4. 1,6	4,9	14,8	3,9	7,9	0,7				91. 29. 7,12				28,26	62. 51. 26,93	T.
	H. C. 9411.....	1. 14,1	20,6	23,9	17,9	21,3	15,6				103. 6. 19,37				44,99	74. 28. 55,91	T.
	(b) H. C. 9567.....	4. 16,8	23,1	25,6	18,3	25,0	18,0				96. 19. 20,90				34,74	67. 41. 47,19	T.
	(b) H. C. 9704.....	4. 34,0	39,2	44,1	35,1	42,9	37,0				89. 49. 38,62				26,16	61. 11. 56,33	T.
	H. C. 9854.....	1. 23,7	31,0	34,9	27,1	32,9	27,5			+3	102. 26. 30,46		36,5	34,0	43,81	73. 49. 5,82	T.
	H. C. 10007.....	1. 8,9	13,1	19,7	10,1	18,0	9,3			+3	89. 41. 13,65				25,92	61. 3. 31,12	T.
	(e) Metis.....	0. 38,2	43,0	49,9	40,5	46,0	39,0			+3	94. 50. 43,86	29,890	35,0	33,9	32,61	66. 13. 8,02	T.
Feb. 5	(b)(f) Metis.....	4. 26,4	35,3	37,6	31,7	37,4	30,1	+10,2	10,079	+2 1/2	94. 44. 31,89	29,460	43,1	42,9	31,40	66. 6. 55,81	T.
Feb. 6	S.L.....	1. 51,8	59,9	63,4	58,0	59,5	54,9		11,065		134. 1. 36,37	29,795	44,0	43,8	141,82	105. 25. 50,71	T.
	(b) S.L.....	4. 15,0	25,6	26,0	21,0	25,7	19,4		11,065		134. 33. 59,72				145,64	105. 58. 17,88	T.
	) S.L.....	2. 35,1	43,8	48,9	42,2	45,8	36,8			+1	117. 47. 46,06	29,926	42,6	42,6	73,99	89. 10. 52,57	T.
	) S.L.....	...	...	...	...	...	...		10,040	+2	117. 47. 48,28				...	89. 10. 54,79	T.
	Metis.....	3. 18,0	22,2	32,0	22,0	24,5	19,9				94. 38. 24,27	30,110	35,5	34,0	32,56	66. 0. 49,35	C.
Feb. 8	(g) S.L.....	4. 16,2	23,8	30,0	24,2	26,0	18,1		10,332		133. 24. 17,63	29,879		48,5	136,67	104. 48. 26,82	T.
	(g) S.L.....	1. 38,7	47,7	51,9	44,9	49,8	42,0		10,332		133. 56. 39,53				140,28	105. 20. 52,33	T.
	) S.L.....	1. 30,4	40,1	42,1	34,5	39,9	34,0			+1	109. 6. 40,24	29,988	43,9	44,1	54,54	80. 29. 27,30	T.
	) S.L.....	...	...	...	...	...	...		10,222	+2	109. 6. 38,52				...	80. 29. 25,58	T.
	Bessel III. 569...	3. 1,1	7,0	13,5	6,1	10,5	4,0				105. 13. 8,10	30,028	43,1	43,0	47,72	76. 35. 48,34	T.
	(h) * R. 3 ^h . 39 ^m . 21 ^s	1. 10,4	18,1	21,1	15,0	20,2	12,4				94. 46. 16,65				32,04	66. 8. 41,21	T.
	(i) B.A.C. 1171.....	...	...	...	...	...	...		14,812		94. 44. 36,36				32,00	66. 7. 0,88	T.
	H. C. 7230.....	2. 32,4	38,9	45,2	35,1	42,1	32,9				98. 17. 38,65				36,91	69. 40. 8,08	T.
	(b) H. C. 7362.....	4. 40,1	47,0	47,5	42,6	47,9	41,0				97. 44. 44,27				36,13	69. 7. 12,92	T.
	A ¹ Tauri.....	2. 15,2	22,6	27,9	20,2	24,6	17,6				96. 57. 22,15				35,02	68. 19. 49,69	T.
	H. C. 8051.....	0. 9,9	17,8	19,4	15,0	19,6	11,1				95. 15. 15,55	30,044	43,0	42,4	32,75	66. 37. 40,82	T.
	H. C. 8058.....	...	...	...	...	...	...		13,582		95. 14. 0,90				32,72	66. 36. 26,14	T.
	B.A.C. 1373.....	0. 30,6	38,6	40,5	34,2	38,8	31,8				97. 20. 35,95				35,63	68. 43. 4,10	T.
	H. C. 8468.....	1. 20,8	28,2	30,9	24,0	31,5	22,5				95. 36. 26,80				33,23	66. 58. 52,55	T.
	β Tauri R.....	0. 59,6	66,6	67,4	62,0	69,3	62,8		9,213		222. 41. 21,40	30,068	42,1	41,0	26,25	61. 31. 28,33	T.
	β Tauri.....	3. 45,4	50,0	56,6	48,4	53,4	46,4		9,213		90. 9. 7,75				...	61. 31. 26,52	T.

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Cloudy. (b) Negative correction for Runs. (c) Clouded and badly defined. (d) Very faint. (e) Very faint from cloud. (f) The Circle dripping with moisture. (g) Very badly defined and extremely unsteady. (h) 'Preceded the next about 15'. (i) The micrometer reading was set down 15",812. The alteration was made from a comparison of this with a later observation.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refract.	Apparent N.P.D. from the Observation.	Observer.					
		A	B	C	D	E	F						Int.	Ext.								
		"	"	"	"	"	"						"	"				"				
Feb. 8	H. C. 10390.....	1.26,0	32,3	36,0	29,7	34,0	27,3	+10,2	13,809		94. 6. 31,40	30,063	42,1	41,0	31,33	65. 28. 55,25	T.					
	H. C. 10528.....	0.18,8	26,1	28,0	22,9	27,7	20,9				92. 30. 24,22					29,23	63. 52. 45,97	T.				
	H. C. 10679.....	1.57,8	63,9	68,7	62,0	66,0	58,7				92. 27. 3,55					29,16	63. 49. 25,23	T.				
	H. C. 10686.....	...	...	...	...	...	...				92. 25. 44,17					29,13	63. 48. 5,82	T.
	(a) H. C. 10917.....	4.11,5	19,4	20,8	14,0	20,8	13,9				91. 19. 16,50					27,71	62. 41. 36,73	T.				
	(a) Sirius R.....	3.26,5	37,7	37,3	33,8	39,2	33,0				177. 43. 45,13					152,35	106. 31. 10,70	T.				
	(b) Sirius.....	1.23,9	33,0	34,9	29,3	34,0	27,2				135. 6. 41,93					106. 31. 6,80	T.					
	(c) Metis.....	1.29,7	35,0	39,9	33,6	37,1	30,0				94. 26. 35,58					32,04	65. 49. 0,14	T.				
	(d) Regulus R.....	0.21,1	28,8	29,2	25,2	30,6	24,5				206. 54. 43,24					49,62	77. 18. 29,86	T.				
	(d) Regulus.....	1.24,7	31,9	34,9	27,9	32,6	26,4				105. 55. 47,34						77. 18. 29,48	T.				
Feb. 9	Zenith Point....	0.16,3	23,9	25,1	20,7	23,7	20,7		10,307		66. 25. 15,48					T.						
Feb. 11	⊙ S.L.....	3.27,1	35,4	39,7	34,6	37,1	30,3		9,468		132. 58. 46,34	30,220	42,9	42,1	137,26	104. 22. 56,12	T.					
	⊙ N.L.....	1. 7,0	16,5	20,0	13,0	17,7	10,4		9,468		132. 26. 25,61					133,85	103. 50. 31,93	T.				
	(e)) S.L.....	1.41,9	46,9	53,8	44,2	51,0	42,6			99. 41. 47,94	30,167					38,0	34,6	39,83	71. 4. 20,29	T.		
) S.L.....		10,021	99. 41. 48,16									71. 4. 20,51	T.		
) S.L.....		10,114	99. 41. 47,62									71. 4. 19,97	T.		
	(f) δ U. Min. sp. R.	0.18,5	23,2	27,9	21,0	25,0	19,2		8,772	287. 35. 49,31	30,164					36,2	34,6	53,06	3. 24. 18,89	T.		
	(g) (a) δ Ursæ Min. SP.	4.14,2	21,6	24,2	15,9	24,3	16,9		8,772	25. 14. 42,15									3. 24. 18,39	T.		
	Sirius.....	1.33,6	41,1	44,2	37,0	43,0	35,9			135. 6. 39,70									154,50	106. 31. 6,72	T.	
	(a)(h) ζ Geminorum R.	4.53,9	61,0	62,5	56,0	62,1	56,1		10,109	214. 59. 56,31	37,08							69. 13. 4,25	T.			
	ζ Geminorum....	0.28,6	34,3	39,8	30,0	36,0	29,6		10,109	97. 50. 31,19								69. 13. 0,79	T.			
Feb. 12	⊙ N.L.....	1.55,3	63,5	67,1	61,0	65,8	57,1		10,967		132. 6. 42,17	30,053	42,5	43,5	130,71	103. 30. 45,40	T.					
	(a) ⊙ S.L.....	4.17,0	26,8	26,7	20,9	27,5	19,0		10,967		132. 39. 2,63					134,02	104. 3. 9,17	T.				
Feb. 14	⊙ S.L.....	3.10,2	18,0	24,0	17,8	18,8	13,0		8,502		131. 58. 49,30	30,180	43,1	46,0	129,80	103. 22. 51,62	T.					
	⊙ N.L.....	0.53,0	61,9	65,0	58,8	62,5	55,5		8,502		131. 26. 30,99					126,67	102. 50. 30,18	T.				
	(a)) N.L.....	4.19,9	27,6	29,6	23,0	29,8	21,2			100. 34. 24,98	30,228					40,4	37,0	41,05	71. 56. 58,55	T.		
) N.L.....		9,979	100. 34. 23,46									71. 56. 57,03	T.		
) N.L.....		9,894	100. 34. 23,37									71. 56. 56,94	T.		
Feb. 15	⊙ N.L.....	1.13,1	21,0	24,6	18,5	21,9	16,0		10,744		131. 6. 4,09	30,250	41,1	41,1	126,31	102. 30. 2,92	T.					
	⊙ S.L.....	3.34,1	40,9	47,0	38,0	41,6	34,7		10,744		131. 38. 25,14					129,42	103. 2. 27,08	T.				
	(k) γ Tauri R.....	4. 8,1	12,9	20,5	13,1	16,6	8,4		11,220		209. 28. 49,27					30,238	39,4	35,1	45,69	74. 44. 19,90	T.	
	γ Tauri.....	1.59,7	64,9	69,0	61,9	65,4	58,1		11,220		103. 21. 58,45									74. 44. 16,66	T.	
	B.A.C. 1373.....	0.30,5	36,0	41,1	34,9	36,9	30,0				97. 20. 35,08									36,41	68. 43. 4,01	T.
	H. C. 8730.....	1.26,1	31,0	36,2	27,4	33,9	25,9				96. 16. 30,58									34,89	67. 38. 57,99	T.
	H. C. 8869.....	2.57,7	61,4	68,6	60,1	62,3	57,0				95. 58. 2,20									34,45	67. 20. 29,17	T.
	(a) H. C. 9003.....	4.38,4	45,9	48,7	41,6	45,3	40,2				97. 34. 43,25									36,75	68. 57. 12,52	T.
	H. C. 9084.....	1.42,8	47,9	53,8	46,0	50,0	42,6				95. 31. 48,35					33,84	66. 54. 14,71	T.				
	H. C. 9331.....	1.21,1	25,3	32,1	22,7	26,9	21,0				95. 6. 25,32					30,244	38,6	34,4	33,32	66. 28. 51,16	T.	
	(a) H. C. 9517.....	4.56,0	62,0	67,1	58,8	63,6	57,0				100. 35. 0,75								41,31	71. 57. 34,58	T.	
	B.A.C. 1577.....	3.13,5	17,9	25,3	15,1	19,9	12,0				90. 33. 18,72								27,28	61. 55. 38,52	T.	
	H. C. 9786.....	3.14,8	19,0	27,9	17,0	21,1	13,4				92. 53. 19,98					30,32	64. 15. 42,82	T.				
	β Tauri R.....	0.54,1	61,3	63,0	58,1	62,8	56,0		8,844		222. 41. 23,64					26,77	61. 31. 26,61	T.				
	(a) β Tauri.....	3.39,0	45,0	47,1	40,4	45,3	39,8		8,844		90. 9. 6,42						61. 31. 25,71	T.				
	(a) H. C. 10304.....	3.32,9	40,7	42,1	35,0	41,1	34,9				90. 58. 37,32					30,246	37,8	33,6	27,87	62. 20. 57,71	T.	
	(a) H. C. 10485.....	3. 8,0	14,7	17,1	10,9	16,5	8,9				99. 58. 12,08								40,44	71. 20. 45,04	T.	
	H. C. 10633.....	0.36,2	42,6	47,0	39,1	43,5	37,5				90. 55. 41,22								27,81	62. 18. 1,55	T.	
	H. C. 10684.....		8,101		90. 56. 20,80								27,83	62. 18. 41,15	T.	
	(a)(l) H. C. 10866.....	4.43,2	49,0	54,0	46,3	50,1	44,0				99. 49. 47,88					30,242	34,4	30,4	40,22	71. 12. 20,62	T.	
	H. C. 11036.....	1.41,9	45,9	52,7	44,4	48,1	41,1				93. 26. 46,27								31,11	64. 49. 9,90	T.	
	H. C. 11349.....	0.35,9	41,0	44,9	38,2	41,7	35,3				96. 5. 39,73								34,75	67. 28. 7,00	T.	
H. C. 11466.....	0.47,1	51,3	58,7	49,4	54,5	46,9				99. 55. 51,62	40,38	71. 18. 24,52	T.									
Metis.....	0.43,1	47,9	53,1	46,4	48,4	43,4				93. 50. 48,66	31,86	65. 13. 13,04	T.									
(m)) N.L.....	3.14,1	18,5	26,3	18,6	20,4	15,0				104. 3. 22,85	47,33	75. 26. 2,70	T.									
) N.L.....	...	...	...	...	...	...		9,899		104. 3. 22,04		75. 26. 1,89	T.					
) N.L.....	...	...	...	...	...	...		9,713		104. 3. 23,07		75. 26. 2,92	T.					

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
Feb. 17	⊙ S.L..... (a) ⊙ N.L.....	1. 17,2 3. 55,9	25,1 66,0	28,8 67,5	24,6 62,4	26,2 66,3	19,6 60,1	+10,2	8,243 8,243		130. 57. 0,67 130. 24. 39,34	30,030	43,0	38,0	125,36 122,41	102. 20. 58,55 101. 48. 34,27	T. T.
Feb. 18	(b) (a) ⊙ N.L..... ⊙ S.L.....	3. 23,2 0. 42,9	35,9 54,0	32,8 53,1	29,5 50,1	35,5 53,3	26,0 46,0	+7,3	9,467 9,467		130. 3. 41,23 130. 36. 1,21	29,900	51,4	53,0	116,36 119,14	101. 27. 29,62 101. 59. 52,38	T. T.
Feb. 20	(c) ⊙ S.L..... ⊙ N.L.....	3. 12,9 0. 58,0	21,8 67,9	25,1 68,1	19,5 64,2	23,0 68,9	14,5 59,9		9,659 9,659		129. 53. 27,39 129. 21. 11,88	29,680	50,1	51,7	114,97 112,34	101. 17. 14,39 100. 44. 56,25	T. T.
Feb. 21	(a) ⊙ N.L..... ⊙ S.L.....	4. 44,3 2. 0,8	54,5 10,0	54,1 13,0	51,1 8,6	55,0 11,8	47,0 2,8		10,730 10,730		128. 59. 35,77 129. 31. 53,16	29,833	45,9	45,0	112,75 115,36	100. 23. 20,55 100. 55. 37,55	T. T.
Feb. 22	⊙ S.L..... ⊙ N.L.....	0. 32,4 3. 13,4	40,8 19,1	42,5 25,0	39,2 17,7	41,0 20,7	34,8 15,0		11,241 11,241		129. 10. 12,76 128. 37. 53,42	29,978	45,0	45,5	114,03 111,47	100. 33. 58,82 100. 1. 36,92	T. T.
Feb. 24	(d) δ Ursæ Min. SP. R. δ Ursæ Min. SP. H. C. 12871..... H. C. 13194..... B.A.C. 2265..... H. C. 13611..... Metis.	1. 30,3 0. 14,9 3. 3,5 1. 19,5 1. 57,1 3. 2,8 4. 12,8	34,2 21,4 7,2 23,8 61,8 6,1 13,9	38,8 24,7 15,1 28,8 67,0 14,9 24,2	32,8 17,2 6,3 21,3 59,7 5,8 14,0	35,3 23,2 10,1 25,3 64,0 8,8 17,4	29,3 15,0 0,9 19,0 55,5 3,0 10,0		11,940 11,940		287. 35. 54,12 25. 14. 37,39 100. 38. 7,95 92. 41. 23,28 100. 42. 1,33 96. 58. 7,67 93. 19. 16,42	29,746	42,6	41,0	51,64 40,15 29,15 40,25 34,86 30,08	3. 24. 21,79 3. 24. 22,22 72. 0. 40,13 64. 3. 44,46 72. 4. 33,61 68. 20. 34,56 64. 41. 38,53	T. T. T. T. T. T. T.
Feb. 25	(e) ⊙ N.L..... ⊙ S.L..... Zenith Point.	2. 3,8 4. 22,2 0. 11,0	11,0 27,4 17,3	15,5 34,2 19,1	9,4 27,0 15,3	12,2 29,6 17,3	4,4 21,5 13,0		10,979 10,979 9,981		127. 31. 49,52 128. 4. 7,67 66. 25. 15,97	29,824	43,8	51,2	104,72 107,06	98. 55. 26,27 99. 27. 46,76	T. T. T.
Feb. 26	⊙ S.L..... (a) ⊙ N.L..... (a) Rigel β Tauri R..... β Tauri..... (a) Metis	1. 7,6 3. 52,2 4. 8,0 0. 12,9 2. 52,4 4. 36,8	16,1 61,5 17,9 19,8 57,6 43,0	19,0 61,1 17,8 20,8 65,1 47,1	15,4 58,7 16,1 17,8 58,9 41,5	17,1 62,0 18,0 21,5 60,8 44,0	8,5 53,4 10,0 14,8 51,4 35,7		8,431 8,431 6,780 6,780		127. 41. 46,97 127. 9. 30,60 126. 59. 14,47 222. 41. 25,78 90. 9. 5,53 93. 14. 41,28	30,254 30,338	42,0 39,0	41,6 33,6	109,09 106,72 108,08 26,90 31,01	99. 5. 28,09 98. 33. 9,35 98. 22. 54,58 61. 31. 25,09 61. 31. 24,46 64. 37. 4,32	T. T. T. T. T. T.
Feb. 27	(e) ⊙ N.L..... (a) ⊙ S.L.....	1. 53,2 4. 12,0	61,5 21,8	65,5 21,0	60,8 17,6	63,3 21,5	55,5 12,9		9,879 9,879	+4	126. 47. 2,97 127. 19. 20,83	30,300	42,0	42,5	105,08 107,39	98. 10. 40,08 98. 43. 0,25	T. T.
Feb. 28	(f) Sirius R..... Sirius.....	3. 12,5 1. 11,1	19,0 17,5	26,2 21,8	20,9 16,2	22,1 19,4	16,2 13,1		8,811 8,811		177. 43. 45,06 135. 6. 41,61	30,254	37,9	34,0	155,18	106. 31. 14,09 106. 31. 8,82	T. T.
Mar. 4	(a) ⊙ S.L..... ⊙ N.L..... Metis.....	4. 26,1 2. 11,0 1. 20,8	29,5 13,0 19,1	28,5 15,0 22,9	28,4 15,2 21,6	29,4 14,3 20,2	26,1 9,2 17,2	+10,0	6,441 6,441		125. 25. 41,99 124. 53. 27,87 93. 6. 20,75	29,970 29,888	47,5 36,4	45,7 33,6	97,81 95,77 30,29	96. 48. 55,32 96. 16. 39,16 64. 28. 26,56	T. T. T.
Mar. 6	(a)(g) H. C. 16554 35 Cancri..... (h) H. C. 17017..... H. C. 17249..... (a) Bessel VIII. 1072. (i) H. C. 17513..... (k) Bessel VIII. 1299. (a) Bessel VIII. 1441. π ¹ Cancri..... H. C. 18320..... (l) Metis..... α Hydræ.....	4. 40,3 1. 55,4 3. 38,2 3. 26,9 4. 36,0 0. 59,9 2. 32,9 4. 17,5 2. 9,3 3. 38,5 0. 13,7 2. 40,9	41,2 55,0 39,8 25,7 39,8 60,6 35,1 21,0 12,0 40,0 14,0 44,8	43,1 58,8 43,2 31,9 36,0 63,0 37,0 18,1 13,0 42,0 16,1 46,1	41,9 56,0 43,9 28,0 40,2 63,0 37,8 21,5 10,9 42,5 15,6 47,7	44,2 57,0 41,0 27,1 38,6 57,9 35,8 19,7 9,2 40,8 14,9 44,9	38,1 51,1 38,1 23,2 36,2 57,9 32,2 17,8 9,2 38,5 11,0 41,9			+2	94. 59. 41,37 98. 31. 56,20 105. 8. 41,93 97. 28. 28,27 105. 54. 37,67 95. 46. 1,83 107. 12. 37,33 105. 49. 19,03 103. 2. 12,33 99. 13. 41,62 93. 5. 14,30 126. 37. 45,28	29,809 29,814	39,1 39,2	37,5 36,5	32,47 37,41 47,78 35,89 49,10 33,52 51,41 49,06 44,39 38,51 30,03 104,10	66. 21. 49,36 69. 54. 9,13 76. 31. 5,23 68. 50. 39,68 77. 17. 2,29 67. 8. 10,87 78. 35. 4,26 77. 11. 43,61 74. 24. 32,24 70. 35. 55,65 64. 27. 19,85 98. 1. 4,90	T. T. T. T. T. T. T. T. T. T. T. T. T.
Mar. 11	(m) ⊙ N.L.....	0. 23,9	26,2	26,1	27,0	25,6	23,3			+2	122. 10. 25,58	29,920	40,0	43,3	86,62	93. 33. 28,12	T.

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 10",6. ASSUMED CO-LATITUDE = 37°. 47'. 0",00.

March 1, The Circle was taken from the wall and the pivots were cleaned and oiled.

March 3, the Microscopes were made to point to the middle of the gold band, and their readings were adjusted. The micrometer wire was found to be equatorially adjusted.

(a) Negative correction for Runs. (b) Very cloudy; doubtful observation. (c) Badly defined and faint from cloud. (d) Time by Molyneux, 6h. 25m. 0s and 6h. 26m. 18s. Molyneux fast, 2m. 16s. (e) Cloudy. (f) The mercury unsteady. (g) 'The northern and brighter of a coarse double star.' (h) 'One equal north-following.' (i) 'A brighter south-following.' (k) 'One equal south-preceding.' (l) 'Good.' (m) Without the dark glass: not satisfactory.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
Mar. 11	(a) N.L.....	3.48,1	50,2	49,5	48,0	49,7	46,2	+10,0		-2	98.13.47,17	29,923	39,2	38,1	37,06	69.35.59,75	T.
	» N.L.....	...	...	...	...	...	...		10,002	-1	98.13.47,59					69.36.0,17	T.
	» N.L.....	...	...	...	...	...	...		10,101		98.13.46,11					69.35.58,69	T.
	» N.L.....	...	...	...	...	...	...		10,102	+1	98.13.46,78					69.35.59,36	T.
	» N.L.....	...	...	...	...	...	...		10,143	+2	98.13.46,75					69.35.59,33	T.
	μ Geminorum...	2.48,0	46,7	50,7	48,0	48,3	44,1				96.2.48,57				33,99	67.24.58,08	T.
	(a) ν Geminorum...	4.46,6	47,7	47,2	45,5	47,5	43,4				98.19.46,22				37,21	69.41.58,95	T.
	H. C. 12650.....	1.2,3	2,2	4,7	1,6	3,6	0,0			+1½	99.21.2,88				38,70	70.43.17,10	T.
	B.A.C. 2184.....	0.53,5	54,3	55,6	52,9	54,1	50,6				102.5.53,80				42,90	73.28.12,22	T.
	(b) Sirius.....	1.59,3	62,0	61,1	62,2	60,6	60,0			+2	135.7.1,53				152,16	106.31.9,21	T.
	12 Cancri.....	3.23,8	29,3	31,9	30,8	28,6	27,3				104.33.30,72	29,908	37,0	34,8	47,21	75.55.53,45	T.
	H. C. 16099.....	1.10,8	10,5	13,7	10,6	11,0	8,0				97.6.11,17				35,68	68.28.22,37	T.
	(a) H. C. 16258.....	4.41,9	43,0	43,9	41,5	43,2	39,8			+1½	96.54.42,12				35,42	68.16.53,06	T.
	(a) Bessel VIII. 415.	3.45,5	48,5	45,1	46,2	46,5	44,3				104.38.45,68				47,36	76.1.8,56	T.
	(a) H. C. 16624.....	3.50,0	52,0	51,1	48,9	51,4	48,1				101.48.49,85				42,72	73.11.8,09	T.
	H. C. 16756.....	2.52,5	52,9	55,4	54,6	52,6	49,8				102.47.53,93	29,900	37,0	33,0	44,45	74.10.13,90	T.
	* R. 8 ^h . 24 ^m . 22 ^s.	...	...	...	...	...	...		0,478		102.51.12,38				44,54	74.13.32,44	T.
	H. C. 17249.....	3.27,1	25,2	31,7	25,9	27,4	22,9				97.28.27,83				36,34	68.50.39,69	T.
	Metis.....	1.5,2	4,0	8,8	7,5	5,5	0,9				93.6.5,68	29,898	35,6	32,5	30,36	64.28.11,56	T.
	H. C. 18508.....	0.62,1	62,4	66,4	63,1	63,8	59,2				99.51.3,18				39,88	71.13.18,58	T.
	(c) Zenith Point	0.44,3	45,0	44,2	45,7	42,1	44,6		10,581		66.25.32,48						T.
Mar. 13	(a) ☉ S.L.....	4.54,5	60,0	55,9	60,0	56,6	54,4		8,485		121.55.28,45	29,657	43,4	47,5	84,36	93.18.28,33	T.
	☉ N.L.....	2.43,9	47,4	46,1	49,0	45,7	41,9		8,485		121.23.18,15				82,70	92.46.16,37	T.
	(d) » N.L.....	1.33,0	34,2	35,4	33,0	34,1	29,4			+1	99.16.32,29	29,724	41,0	39,2	38,25	70.38.46,06	T.
	» N.L.....	...	...	...	...	...	...		9,899	+2	99.16.33,11					70.38.46,88	T.
Mar. 14	B.A.C. 2265.....	2.16,4	17,3	19,3	17,5	20,1	14,3				100.42.18,25	29,749	41,6	37,9	40,52	72.4.34,29	T.
	B.A.C. 2280.....	4.18,2	18,0	23,1	19,2	20,4	15,6				102.29.20,52				43,28	73.51.39,32	T.
	H. C. 13631.....	3.16,1	14,5	19,9	15,5	17,0	11,6				90.13.16,87				26,22	61.35.18,61	T.
	H. C. 13700.....	...	...	...	...	...	...		14,302		90.11.47,21				26,19	61.33.48,92	T.
	(a) H. C. 16554.....	4.36,2	37,5	38,9	36,9	40,0	35,0			+1½	94.59.37,43	29,744	39,7	35,9	32,50	66.21.45,45	T.
	(e) H. C. 16756.....	2.51,1	50,9	53,9	52,1	52,0	46,1				102.47.51,97				43,95	74.10.11,44	T.
	H. C. 16964.....	0.19,9	20,3	21,3	21,3	22,3	17,7				94.25.20,58				31,76	65.47.27,86	T.
	δ Cancri.....	0.56,0	54,9	58,0	54,9	56,9	52,1				99.55.55,77				39,51	71.18.10,80	T.
	(a)(f) α Cancri R....	4.45,3	47,9	44,1	47,5	45,9	46,8		11,502		206.39.14,85	29,740	39,6	36,1	49,63	77.34.15,26	T.
	α Cancri.....	2.19,9	20,1	21,0	20,9	20,7	18,8		11,502		106.11.49,70					77.34.14,85	T.
	» N.L.....	0.19,1	20,8	19,9	17,9	21,3	16,8			-2	102.0.24,36	29,740		36,5	42,64	73.22.42,52	T.
	» N.L.....	...	...	...	...	...	...		9,902	-1	102.0.23,83					73.22.41,99	T.
	» N.L.....	...	...	...	...	...	...		9,768		102.0.24,16					73.22.42,32	T.
	» N.L.....	...	...	...	...	...	...		9,701	+1	102.0.23,16					73.22.41,32	T.
	» N.L.....	...	...	...	...	...	...		9,609	+2	102.0.22,79					73.22.40,95	T.
	γ Leonis.....	2.16,3	14,7	18,2	14,0	16,2	12,1				98.2.15,98	29,735	39,4	36,1	36,71	69.24.28,21	T.
Mar. 18	Bessel VIII. 1264.	0.12,2	14,1	12,9	12,6	12,9	10,8	+9,0			105.50.13,18	29,570	43,3	42,6	48,07	77.12.36,55	T.
	H. C. 17863.....	1.23,3	23,7	25,9	24,6	24,6	19,9				99.21.24,08				37,90	70.43.37,28	T.
	(a) H. C. 17999.....	4.16,1	19,7	15,7	16,6	17,2	15,5				103.19.16,58				43,92	74.41.35,80	T.
	π ¹ Cancri.....	2.11,0	12,5	12,8	14,3	11,1	8,4				103.2.12,35				43,46	74.24.31,11	T.
	(g) Metis.....	0.11,1	11,2	11,0	10,2	11,1	6,9				93.15.10,30	29,572	43,1	42,5	29,61	64.37.15,21	T.
	H. C. 18508.....	1.3,8	3,9	6,9	2,7	5,0	0,9				99.51.4,20				38,63	71.13.18,13	T.
	Bessel IX. 437...	0.49,3	49,4	50,0	50,2	48,9	46,2				105.35.49,23				47,67	76.58.12,20	T.
	(a) Bessel IX. 533...	4.18,0	19,9	17,9	17,9	18,6	16,9				106.14.17,98				48,77	77.36.42,05	T.
	Bessel IX. 542...	...	...	...	...	...	...		5,675		106.15.48,12				48,81	77.38.12,23	T.
	(a) B.A.C. 3299.....	3.51,2	54,0	50,4	50,4	51,7	49,6				104.38.50,88				46,08	76.1.12,26	T.
	(a) Bessel IX. 782...	3.14,2	17,6	14,2	14,9	16,1	14,5				104.13.14,72				45,38	75.35.35,40	T.
	(h) Bessel IX. 784...	...	...	...	...	...	...		22,676		104.8.50,54				45,26	75.31.11,10	T.
	(i) γ Virginis.....	0.5,3	9,0	7,0	7,1	8,0	4,5				119.15.6,85	29,588	42,6	42,3	77,14	90.37.59,29	T.
	(a) δ Virginis.....	4.54,5	58,8	55,9	57,8	55,6	55,6				114.24.56,33				64,98	85.47.36,61	T.

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Negative correction for Runs. (b) Flaring. (c) The Zenith Point had been taken on March 2, before the microscopes were adjusted. (d) Just clear of clouds. (e) Observed doubtfully, so faint. 'A brighter south-follows.' (f) Too faint. (g) 'A fainter north-preceding, and a brighter south-preceding.' This appears to be the Planet. (h) 'Another of less N.P.D. and the same magnitude was in the field.' (i) The wire was placed mid-way between the stars.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
Mar. 18	☉ S.L.	0.33,2	36,0	34,2	35,3	34,7	31,9	+9,0		-2	122.35.41,79	29,593	41,9	41,1	87,46	93.58.44,55	T.
	☉ S.L. ....	...	...	...	...	...	...		9,820	-1	122.35.41,85					93.58.44,61	T.
	☉ S.L. ....	...	...	...	...	...	...		9,570		122.35.43,34					93.58.46,10	T.
	☉ S.L. ....	...	...	...	...	...	...		9,420	+1	122.35.42,75					93.58.45,51	T.
	☉ S.L. ....	...	...	...	...	...	...		9,262	+2	122.35.42,29					93.58.45,05	T.
Mar. 20	(a) ☉ N.L.	2.29,6	32,4	31,2	31,5	30,6	27,1		9,232		118.37.47,16	29,276	49,0	53,7	72,91	90.0.35,37	T.
	(b) ☉ S.L.	4.34,0	40,0	34,0	38,6	36,8	33,0		9,232		119.9.51,96				74,32	90.32.41,58	T.
	(b)(c) H. C. 18259	4.25,1	26,1	24,9	22,9	26,0	21,0		0,871	+2	93.22.34,69	29,308	44,4	42,8	29,48	64.44.39,47	T.
	Metis .....	...	...	...	...	...	...				93.19.24,15				29,42	64.41.28,87	T.
	(b) Bessel ix. 533	4.17,7	21,1	17,1	18,2	19,0	16,9				106.14.18,12				48,31	77.36.41,73	T.
	Bessel ix. 542 ....	...	...	...	...	...	...		5,711		106.15.47,51				48,35	77.38.11,16	T.
	Bessel ix. 717	1.41,3	43,4	43,1	42,2	42,5	40,4				108.31.42,67				52,36	79.54.10,33	T.
	Bessel ix. 741 ....	...	...	...	...	...	...		17,034		108.29.16,07				52,29	79.51.43,66	T.
	Bessel ix. 872	2.47,5	48,0	49,7	48,8	49,1	45,1				104.27.48,88				45,34	75.50.9,52	T.
	Bessel xi. 368	2.19,5	21,2	21,4	21,6	19,4	19,0				114.57.21,05	29,308	42,4	41,0	65,77	86.20.2,12	T.
	(b)(d) Bessel xi. 479	4.59,1	61,9	58,8	60,5	59,8	58,7			+2	109.54.59,87				55,17	81.17.30,34	T.
	(e) Bessel xi. 592	0.43,5	46,6	43,9	45,9	43,5	42,0				116.50.44,45				70,30	88.13.30,05	T.
	(b) Bessel xi. 688	4.18,1	20,7	17,4	18,6	18,5	16,0				112.54.18,00				61,22	84.16.54,52	T.
	(f) Bessel xi. 737 ....	...	...	...	...	...	...		14,147		112.52.51,57				61,17	84.15.28,04	T.
	(g) B.A.C. 4030	0.21,1	23,1	21,3	21,6	21,7	18,9				122.55.21,38				87,71	94.18.24,39	T.
	Zenith Point	0.30,4	30,6	29,0	31,3	28,6	29,9		9,876		66.25.32,70						T.
Mar. 21	☉ S.L.	1.3,8	9,3	4,3	5,2	5,3	1,9		9,682		118.46.11,91	29,207	50,0	54,0	73,06	90.9.0,27	T.
	☉ N.L.	3.58,7	61,1	60,0	61,8	59,0	55,0		9,682		118.14.7,08				71,67	89.36.54,05	T.
	(h) Metis	1.51,1	50,0	51,0	49,7	50,4	46,0				93.21.50,23	29,180	44,4	43,5	29,30	64.43.54,83	T.
	(h) H. C. 18259 ....	...	...	...	...	...	...		7,807		93.22.35,94				29,31	64.44.40,55	T.
Mar. 22	Metis	4.15,5	17,5	15,1	14,9	17,3	13,4				93.24.16,90	28,809	46,3	45,4	28,86	64.46.21,06	B.
Mar. 26	(b) Bessel ix. 1266	4.38,0	41,0	37,6	40,6	38,1	39,0	+8,8			110.59.38,95	29,408	42,5	39,4	57,67	82.22.12,43	B.
	19 Sextantis	1.30,3	33,9	32,1	33,0	31,5	31,8				113.16.32,55				62,44	84.39.10,80	B.
	(i) Bessel x. 134	0.4,4	7,0	4,4	6,5	4,6	4,6			+3	110.45.5,47				57,18	82.7.38,46	B.
Mar. 27	Zenith Point	0.12,4	12,5	10,5	12,8	11,0	12,9		9,035		66.25.32,19						B.
Mar. 28	☉ S.L.	1.15,8	23,4	17,3	23,5	19,6	18,6		10,280		116.1.14,24	29,692	48,1	50,6	67,82	87.23.57,87	B.
	(b) ☉ N.L.	4.9,0	17,6	8,6	17,0	12,9	11,7		10,280		115.29.6,74				66,55	86.51.49,10	B.
	π ¹ Caneri.	2.15,0	17,0	15,8	21,1	17,4	14,7		10,280		103.2.11,68	29,714	46,5	43,6	43,59	74.24.31,08	B.
	(k) Metis	2.28,3	27,3	29,8	30,3	29,3	26,4		10,280		93.42.23,44				30,27	65.4.29,52	B.
	(l) H. C. 18508	1.3,2	5,2	4,3	8,8	5,4	3,3			+1½	99.51.5,46				38,73	71.13.20,00	B.
	(m) Bessel ix. 493	4.10,1	11,0	13,9	15,1	12,4	9,5				107.49.13,23				51,70	79.11.40,74	B.
	(n) H. C. 18861	2.25,5	27,3	27,1	30,4	28,8	25,4				99.2.28,13				37,55	70.24.41,49	B.
Mar. 29	☉ S.L.	3.20,3	23,5	22,7	23,9	20,4	20,0		11,590		115.37.49,64	29,384	48,6	51,8	66,04	87.0.31,49	B.
	☉ N.L.	1.16,4	20,4	16,2	21,6	17,4	16,9		11,590		115.5.45,39				64,81	86.28.26,01	B.
Apr. 1	☉ N.L.	1.20,1	22,2	20,0	24,1	20,9	20,0		11,129		113.55.58,09	30,107	45,5	46,3	64,47	85.18.38,37	B.
	☉ S.L.	3.19,9	20,9	21,4	24,2	19,7	18,9		11,129	+2	114.27.58,86				65,69	85.50.40,36	B.
Apr. 4	(o) Bessel x. 664	0.14,0	17,6	14,8	20,3	16,4	15,4	+11,2			113.30.16,53	29,993	44,5	37,5	64,44	84.52.56,37	B.
	(b) Bessel x. 776	4.58,5	62,2	59,4	65,0	61,8	58,8				112.15.0,95				61,69	83.37.38,04	B.
	56 Leonis.	3.41,9	42,5	44,8	46,9	43,4	40,4				111.38.44,70				60,40	83.1.20,50	B.
	Bessel x. 964	4.29,4	29,4	33,0	34,1	30,6	29,0				112.29.32,58				62,21	83.52.10,19	B.
	Bessel x. 1058	0.11,7	13,5	11,4	16,1	11,6	11,0				115.25.13,30				68,92	86.47.57,62	B.
	Bessel xi. 142	2.42,8	44,6	44,2	46,8	43,3	41,9				118.52.44,95				77,92	90.15.38,27	B.
Apr. 5	(p) Metis	4.18,8	16,0	21,3	20,4	18,7	14,5				94.14.19,88	30,012	43,4	36,7	31,72	65.36.27,00	B.
	* R. 9 ^h . 22 ^m . 56 ^s ..	3.52,4	49,0	54,5	53,0	51,2	47,5				93.33.52,70				30,82	64.55.58,92	B.

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) The circle readings are somewhat doubtful, the circle and microscopes being covered with moisture. (b) Negative correction for Runs. (c) 'Preceded Metis about 3' and was brighter.' (d) 'No star near this.' (e) 'The first and brightest of three.' (f) 'The south-preceding of two.'
 (g) 'No other star.' (h) 'The Planet of Mag. 9.10: the star followed by about 3'.' (i) Very faint. (j) Too faint from mist to bisect accurately.
 (k) 'One north-preceding by 15'.' (l) 'Another north-following,' viz. Bessel ix. 497. (m) Faint from cloud. (n) Just after clearing up. 'One of Mag. 10 precedes,' viz. Bessel x. 659. (p) Cloudy. 'Another object of greater N.P.D. followed.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.		"	° ' "		
		"	"	"	"	"	"						"	"	"			Inch.	°
Apr. 5	Bessel x. 475....	4. 42,0	40,7	44,4	45,7	42,2	38,9	+11,2			104. 14. 44,08	30,013	42,2	34,8	46,84	75. 37. 6,32		B.	
	(a) Bessel x. 576....	0. 26,7	30,0	26,8	32,1	27,9	26,4				115. 20. 28,47				69,16	86. 43. 13,03		B.	
	H. C. 20732.....	1. 3,9	6,0	5,0	7,9	4,7	4,0				109. 51. 5,67				57,10	81. 13. 38,17		B.	
	H. C. 20838.....	3. 41,2	43,0	44,7	47,0	42,3	40,8				114. 23. 44,55				66,91	85. 46. 26,86		B.	
	Bessel x. 846....	0. 18,6	21,6	19,5	22,8	19,9	19,1				115. 10. 20,37				68,75	86. 33. 4,52		B.	
	(b) π Cephei SP. R....	2. 10,4	9,6	10,8	13,0	9,2	9,4		12,504	+2	299. 36. 21,14	30,018	41,5	34,7	80,54	15. 25. 1,08		B.	
	π Cephei SP.	0. 28,4	26,8	29,4	28,2	29,4	26,0		12,504	+2½	13. 14. 32,72					15. 25. 12,42		B.	
	(c) Polaris SP. R....	2. 22,5	22,0	24,2	24,1	20,3	21,3		14,195		285. 41. 2,43	30,009	37,8	32,5	49,55	1. 29. 11,38		B.	
	(c) Polaris SP.	1. 41,8	38,6	41,6	40,7	39,7	38,9		14,195		27. 10. 8,41					1. 29. 5,74		B.	
	(c) Polaris SP. R....	2. 10,5	10,3	12,0	12,5	9,0	9,3		13,430		285. 41. 0,04					1. 29. 8,99		B.	
	(c) Polaris SP.	1. 19,8	17,0	19,3	17,7	17,9	17,4		13,430		27. 10. 7,19					1. 29. 6,96		B.	
Apr. 7	Zenith Point....	0. 12,1	13,0	11,7	13,4	12,4	12,6		9,041		66. 25. 32,60							B.	
Apr. 8	(d) ☉ S.L.	3. 5,8	4,0	5,7	8,3	5,3	4,2		9,849	+4	111. 48. 11,20	29,958	44,9	47,5	59,50	83. 10. 46,10		B.	
Apr. 9	ζ Geminorum....	0. 45,5	46,0	45,2	47,6	45,4	43,4		9,849	+4	97. 50. 49,93	29,808	44,0	45,1	35,86	69. 13. 1,19		B.	
	δ Geminorum....	2. 41,9	40,5	43,8	41,6	42,5	38,1		9,849		96. 22. 45,57				33,83	67. 44. 54,80		B.	
	) N.L.	4. 5,3	2,3	8,4	4,1	4,7	0,2		9,849	-2	98. 24. 11,17	29,822	43,8	42,9	36,82	69. 46. 23,39		B.
	) N.L. ....	...	...	...	...	...	...		9,808	-1	98. 24. 10,80					69. 46. 23,02		B.
	) N.L. ....	...	...	...	...	...	...		9,766		98. 24. 10,58					69. 46. 22,80		B.
	) N.L. ....	...	...	...	...	...	...		9,744	+1	98. 24. 10,04					69. 46. 22,26		B.
	) N.L. ....	...	...	...	...	...	...		9,699	+2	98. 24. 10,09					69. 46. 22,31		B.
Apr. 11	(e) ξ Leonis.	0. 12,6	14,8	12,6	15,0	14,3	12,4				106. 40. 13,70	29,845	43,3	39,6	50,28	78. 2. 39,38		B.	
	(f)) N.L.	2. 2,3	2,8	2,8	4,8	3,6	1,7			-2	103. 57. 9,53	29,842	42,8	39,3	45,66	75. 19. 30,59		B.	
	) N.L. ....	...	...	...	...	...	...		9,905	-1	103. 57. 8,58					75. 19. 29,64		B.
	) N.L. ....	...	...	...	...	...	...		9,718		103. 57. 9,63					75. 19. 30,69		B.
	) N.L. ....	...	...	...	...	...	...		9,642	+1	103. 57. 8,44					75. 19. 29,50		B.
	) N.L. ....	...	...	...	...	...	...		9,549	+2	103. 57. 7,69					75. 19. 28,75		B.
	(g) Regulus R.	0. 12,5	13,5	10,3	13,4	13,0	12,2		10,578	+1½	206. 55. 0,44				49,01	77. 18. 29,17		B.	
	Regulus.	1. 14,0	15,1	13,1	14,7	13,5	13,2		10,578	+4	105. 56. 2,87					77. 18. 27,28		B.	
	(g) ρ Leonis.	3. 14,4	15,0	17,1	16,0	14,6	13,7				108. 33. 16,55				53,75	79. 55. 45,50		B.	
Apr. 12	(h) Metis.	3. 20,1	17,4	22,8	21,3	19,6	17,2				94. 48. 20,98	29,879	43,2	39,4	32,16	66. 10. 28,54		B.	
	* R. 9 ^h . 22 ^m . 56 ^s .	3. 52,5	47,5	53,6	51,4	49,8	47,3				93. 33. 51,78				30,51	64. 55. 57,69		B.	
	H. C. 18861.	2. 19,8	18,5	19,4	21,2	19,3	17,1				99. 2. 20,25				38,08	70. 24. 33,73		B.	
	Bessel ix. 872....	2. 45,2	44,0	45,6	47,0	43,9	42,6				104. 27. 45,73				46,55	75. 50. 7,68		B.	
	Bessel ix. 1011..	0. 19,6	20,0	18,6	21,5	19,9	20,2				110. 50. 20,08				58,27	82. 12. 53,75		B.	
	H. C. 19503.	1. 56,2	56,8	56,1	59,4	55,8	54,1				102. 41. 57,12				43,67	74. 4. 16,19		B.	
	Bessel ix. 1118..	1. 31,4	30,3	31,5	33,1	31,3	30,1				112. 41. 31,83				62,16	84. 4. 9,39		B.	
	Regulus R.	0. 39,5	40,1	38,0	41,2	41,4	39,3		11,830	-1	206. 55. 1,98			38,2	49,19	77. 18. 27,81		B.	
	Regulus.	1. 41,1	40,8	41,2	42,5	41,2	39,9		11,830	+1	105. 56. 3,64					77. 18. 28,23		B.	
	ρ Leonis.	3. 50,7	51,2	54,0	53,6	50,9	49,6		11,830	+2½	108. 33. 15,15	29,884	41,3	37,5	54,03	79. 55. 44,58		B.	
	H. C. 20732.	1. 8,0	9,1	7,9	11,2	8,6	7,5				109. 51. 9,13				56,54	81. 13. 41,07		B.	
	(i)(k) Bessel x. 776....	4. 58,4	61,0	59,0	62,1	61,4	59,7				112. 15. 0,27				61,47	83. 37. 37,14		B.	
	(i) H. C. 21015.	4. 5,6	9,3	4,4	9,1	7,2	6,5				110. 9. 6,68				57,13	81. 31. 39,21		B.	
	) N.L.	1. 3,5	6,0	5,5	7,4	5,5	4,0			-2	108. 26. 12,63				53,81	79. 48. 41,84		B.
	) N.L. ....	...	...	...	...	...	...		9,857	-1	108. 26. 12,13					79. 48. 41,34		B.
	) N.L. ....	...	...	...	...	...	...		9,694		108. 26. 12,11					79. 48. 41,32		B.
	) N.L. ....	...	...	...	...	...	...		9,556	+1	108. 26. 11,62					79. 48. 40,83		B.
	) N.L. ....	...	...	...	...	...	...		9,395	+2	108. 26. 11,68					79. 48. 40,89		B.
	σ Leonis.	1. 43,1	46,0	44,7	46,9	45,6	43,5				111. 46. 45,60				60,47	83. 9. 21,47		B.	
	τ Leonis R.	3. 13,1	13,0	15,2	17,1	14,8	14,1		7,134		197. 54. 15,48				67,54	86. 19. 32,66		B.	
	τ Leonis.	0. 45,1	48,0	45,9	49,0	46,4	45,6		7,134	+2	114. 56. 46,72					86. 19. 29,66		B.	
	(l) Polaris SP. R....	2. 28,5	28,0	30,5	31,4	27,4	28,2		14,143		285. 41. 3,70	29,895	38,8	34,8	49,13	1. 29. 12,23		B.	
	(l) Polaris SP.	1. 32,9	30,5	32,8	30,6	32,3	28,4		14,143		27. 10. 5,08					1. 29. 8,65		B.	
Apr. 15	(m) τ Leonis.	1. 46,6	48,9	47,9	51,7	47,8	47,0	+8,0			114. 56. 48,80	29,782	43,7	38,1	67,22	86. 19. 30,69		B.	

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Faint from haze. (b) Not good: a north wind blowing. (c) Times of bisection by Molyneux, 12^h. 53^m. 39^s, 12^h. 53^m. 6^s, 13^h. 3^m. 36^s and 13^h. 4^m. 51^s.
 Molyneux fast by a circle transit of Spica, 21". (d) Very cloudy: the N.L. hid. (e) Cloudy. (f) Waving and very unsteady. (g) Faint from cloud.
 (h) Faint: Mag. 11. (i) Negative correction for runs. (k) The recorded circle reading was 5' less. (l) Times by Molyneux, 13^h. 6^m. 42^s and 13^h. 8^m. 0^s.
 Molyneux was fast on Hardy 1^m. 31". (m) The evening cloudy.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						Inch.	"			
Apr. 15	Bessel XII. 208 ..	1. 58,0	60,1	58,5	58,9	58,7	56,6	+8,0			121. 46. 58,98	29,782	43,7	36,7	86,18	93. 9. 59,83	B.
	(a) Bessel XII. 272 ..	1. 16,2	17,2	17,3	20,3	19,3	16,0				123. 26. 17,30				91,71	94. 49. 24,18	B.
	B.A.C. 4200.....	4. 24,2	24,0	27,4	29,3	25,5	23,4				122. 24. 26,80				88,21	93. 47. 29,68	B.
	ζ Virginis.....	2. 6,9	8,1	8,2	11,5	8,4	6,0				118. 27. 8,75	29,788	42,1	35,8	76,49	89. 49. 59,91	B.
	γ N.L.	1. 20,2	22,2	21,8	25,4	24,7	21,4			-2	124. 41. 30,23				96,43	96. 4. 41,33	B.
	γ N.L. ....	...	...	...	...	...	...		9,805	-1	124. 41. 30,68					96. 4. 41,78	B.
	γ N.L. ....	...	...	...	...	...	...		9,672		124. 41. 29,81					96. 4. 40,91	B.
	γ N.L. ....	...	...	...	...	...	...		9,434	+1	124. 41. 31,12					96. 4. 42,22	B.
	γ N.L. ....	...	...	...	...	...	...		9,259	+2	124. 41. 31,07					96. 4. 42,17	B.
Apr. 17	⊙ N.L.	0. 24,1	28,1	24,4	22,7	26,5	23,2		11,649		107. 59. 50,58	29,747	50,3	58,2	50,55	79. 22. 15,80	B.
	⊙ S.L.	2. 7,9	12,6	8,4	12,6	10,1	6,9		11,649		108. 31. 35,95				51,50	79. 54. 2,12	B.
	(c)(d) Bessel XI. 186 ..	1. 22,4	26,0	21,6	25,8	23,7	21,2				116. 6. 23,83	29,822	50,5	49,8	68,44	87. 29. 6,94	B.
	Bessel XI. 312...	0. 35,5	39,2	34,8	39,2	37,8	34,7				119. 55. 37,03				78,45	91. 18. 30,15	B.
	H. C. 21911....	2. 26,2	27,9	26,3	28,8	27,6	23,3				118. 12. 27,33				73,73	89. 35. 15,73	B.
	Bessel XI. 688 ..	4. 15,3	16,2	17,2	17,7	15,3	12,6				112. 54. 16,87				61,18	84. 16. 52,72	B.
	Bessel XI. 779...	3. 31,7	32,6	32,6	34,4	32,5	29,5				114. 38. 33,15				65,01	86. 1. 12,83	B.
	Bessel XI. 920...	0. 19,7	23,2	18,6	23,2	21,4	19,1				115. 55. 20,95				67,99	87. 18. 3,61	B.
	ζ ¹ Libræ.....	2. 32,0	33,0	31,6	33,9	33,7	30,3				134. 47. 33,10	29,826	49,6	48,7	145,93	106. 11. 33,70	B.
	γ Libræ.....	3. 28,5	29,6	28,6	31,2	30,3	26,7				132. 53. 30,07				133,05	104. 17. 17,79	B.
	(e) γ S.L.	4. 18,7	17,4	18,8	19,8	19,6	16,4			-2	134. 34. 24,86				144,34	105. 58. 23,87	B.
	γ S.L. ....	...	...	...	...	...	...		9,918	-1	134. 34. 23,98					105. 58. 22,99	B.
	γ S.L. ....	...	...	...	...	...	...		9,805		134. 34. 23,66					105. 58. 22,67	B.
	γ S.L. ....	...	...	...	...	...	...		9,704	+1	134. 34. 23,02					105. 58. 22,03	B.
	γ S.L. ....	...	...	...	...	...	...		9,562	+2	134. 34. 23,15					105. 58. 22,16	B.
Apr. 19	⊙ N.L.	4. 16,0	19,0	18,3	16,7	18,7	14,4		13,937		107. 17. 56,28	29,995	50,7	55,9	49,96	78. 40. 20,91	B.
	⊙ S.L.	1. 7,3	13,5	6,8	12,8	9,3	6,4		13,937		107. 49. 47,60				50,91	79. 12. 13,18	B.
	(g) Bessel x. 776...	4. 58,9	63,9	59,5	66,1	64,6	59,6				112. 15. 2,10	29,917	50,8	46,9	60,34	83. 37. 37,11	B.
	Bessel x. 910...	0. 12,3	16,9	12,3	18,5	16,0	13,1				115. 15. 14,92				67,02	86. 37. 56,61	B.
	(h) Bessel XI. 312...	0. 28,6	33,6	29,6	35,4	32,0	29,5				119. 55. 31,75			46,3	79,26	91. 18. 25,68	B.
	Bessel XI. 1032...	2. 48,0	50,9	50,4	53,8	51,4	47,8				119. 52. 51,15	29,901	49,4	45,2	79,27	91. 15. 45,09	B.
	(i) Bessel XII. 92...	0. 43,9	46,9	43,8	49,5	47,0	43,4				119. 25. 45,95				77,98	90. 48. 38,60	B.
	(g)(k) B.A.C. 4134...	4. 40,9	44,3	40,1	46,4	43,9	40,6				121. 44. 42,62				84,88	93. 7. 42,17	B.
	B.A.C. 4135.....	...	...	...	...	...	...		10,926		121. 44. 23,32				84,87	93. 7. 22,86	B.
	(g) Bessel XII. 249 ..	4. 10,2	14,0	10,0	15,2	15,2	11,5				123. 34. 12,47				90,91	94. 57. 18,05	B.
	(g)(l)* R. 12 ^h . 18 ^m . 49 ^s	4. 49,9	53,7	50,3	55,3	54,0	50,0				123. 49. 52,18				91,82	95. 12. 58,67	B.
	Bessel XII. 308 ..	...	...	...	...	...	...		6,276		123. 51. 9,79				91,89	95. 14. 16,35	B.
	(g) Astræa	4. 2,8	7,8	3,3	9,2	7,4	4,3				125. 19. 5,57	29,845	47,8	41,3	97,87	96. 42. 18,11	B.
Apr. 21	(g) ⊙ S.L.	4. 8,7	13,4	7,6	12,0	12,4	7,5		11,583		107. 8. 37,06	29,496	56,3	60,7	48,40	78. 31. 0,13	B.
	⊙ N.L.	2. 16,3	19,3	17,0	20,6	19,3	15,0		11,583		106. 36. 45,54				47,50	77. 59. 7,71	B.
Apr. 22	(m) Zenith Point....	4. 54,8	54,4	51,8	54,2	53,0	53,0		8,124		66. 25. 33,93						B.
	(m) Zenith Point....	0. 13,1	12,4	10,4	12,8	11,6	11,1		9,003		66. 25. 32,73						B.
	ε Bootis R.....	1. 15,4	15,0	12,8	19,2	16,2	14,2		12,617		221. 55. 21,26	29,487	50,6	48,0	26,31	62. 17. 46,38	B.
	ε Bootis.....	1. 36,0	33,5	35,5	34,2	35,9	31,8		12,617		90. 55. 40,36					62. 17. 41,34	B.
Apr. 23	(n) ⊙ N.L.	2. 11,2	11,1	10,2	11,6	10,7	6,8		12,457		105. 56. 19,64	29,657	54,8	58,4	46,85	77. 18. 41,16	B.
	⊙ S.L.	3. 60,3	60,2	60,8	62,2	59,5	58,4		12,457		106. 28. 10,09				47,74	77. 50. 32,50	B.
	(o) Polaris R.....	2. 22,1	21,0	19,6	24,9	18,9	18,5		8,770		282. 42. 47,00	29,747	59,3	56,8	41,98	1. 29. 12,35	B.
	(o) Polaris.....	2. 56,8	52,0	55,0	54,6	54,8	51,1		8,770		30. 8. 20,45					1. 29. 13,14	B.
	(o) Polaris R.....	2. 8,3	6,0	5,9	9,0	5,6	2,5		7,912		282. 42. 46,77					1. 29. 12,58	B.
	(o) Polaris	2. 32,3	28,7	30,6	31,4	31,2	27,8		7,912		30. 8. 19,06					1. 29. 11,75	B.
Apr. 24	(p) ⊙ S.L.	3. 13,9	15,0	9,0	9,2	10,4	11,3		9,900		106. 8. 14,40	29,739	56,0	57,5	47,39	77. 30. 36,46	B.
	(q) Bessel XII. 561 ..	4. 13,2	14,4	16,7	17,0	15,9	11,5				126. 34. 15,92	29,777	50,3	43,4	102,18	97. 57. 32,77	B.
	(r) Bessel XII. 718 ..	0. 54,4	55,3	54,2	55,6	56,5	51,8				124. 40. 54,87				94,84	96. 4. 4,38	B.
	Bessel XIII. 750.	2. 56,2	55,7	56,6	58,4	56,2	51,0				130. 52. 56,47	29,780	49,4	42,0	122,89	102. 16. 34,03	B.

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) The microscope readings were 1' less. See the observations of this star May 9 and May 14. (b) Very doubtful observation, the Limbs being nearly invisible from dense cloud. (c) The evening cloudy. (d) Not good: the star very faint. (e) Uneven: a slight projection from the Limb was blotted. (f) Very tremulous. (g) Negative correction for Runs. (h) Cloudy. (i) 'The southern and fainter of two.' (k) 'The preceding star.' (l) The R.A. was determined by an equatorial observation on April 2, 1857. (m) The mean of these is the adopted Zenith Point. (n) Steady. (o) Times by Molyneux, 1^h. 4^m. 4^s, 1^h. 5^m. 33^s, 1^h. 13^m. 47^s and 1^h. 14^m. 54^s. Molyneux fast on Hardy, 59". (p) The other Limb hid by cloud. (q) Two very faint stars preceded. (r) The instrument was set for Bessel XII. 694, which could not be seen. This star was low in the field.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.		"	"	"	
		"	"	"	"	"	"						"	"					
Apr.25	(a) Bessel xi. 445 ...	1.23,0	24,0	22,7	27,0	23,5	20,6	+8,0			111.56.23,85	29,824	48,9	41,7	60,15	83.18.58,67	B.		
	(b) B.A.C. 3962	0.39,0	41,3	39,2	43,6	40,3	37,3			116.50.40,30				71,43	88.13.26,40	B.			
	Bessel xi. 654 ...	1.31,1	33,0	31,4	35,8	31,8	29,1			115.26.32,43				67,99	86.49.15,09	B.			
	B.A.C. 3996	1.23,0	23,7	23,5	27,3	23,9	21,3			112.36.24,17				61,57	83.59.0,41	B.			
	(c) Bessel xi. 779 ...	3.31,8	32,0	33,3	36,7	31,8	28,3			114.38.33,25				66,10	86.1.14,02	B.			
	(d) Bessel xii. 414 ...	2.4,1	4,2	3,5	7,8	4,3	0,3			121.57.4,33			41,5	85,98	93.20.4,98	B.			
	Bessel xii. 474 ...	0.54,8	56,2	55,6	59,3	56,1	52,2			126.50.55,93				103,90	98.14.14,50	B.			
	(e) Bessel xii. 561 ...	4.15,0	14,2	18,5	18,4	15,3	12,0			126.34.16,72				102,74	97.57.34,13	B.			
	Bessel xiii. 321 ...	3.33,6	32,8	35,3	38,1	34,2	31,0			122.48.35,12	29,812	47,2	40,5	88,94	94.11.38,73	B.			
	Bessel xiii. 421 ...	2.25,9	26,8	27,7	30,2	27,8	24,3			126.17.27,77				101,77	97.40.44,21	B.			
	Bessel xiii. 427 ...	...	...	...	...	...	...			126.16.50,49				101,73	97.40.6,89	B.
	H. C. 25180	1.36,8	37,2	37,8	40,3	38,3	34,4			126.56.37,88				104,47	98.19.57,02	B.			
	(f) Bessel xiii. 572 ...	3.57,8	57,5	60,2	62,8	59,5	54,7		11,789	129.8.59,80				114,47	100.32.28,94	B.			
	Bessel xiii. 674 ...	0.45,9	47,0	45,3	50,4	47,4	43,5			130.45.46,80				122,76	102.9.24,23	B.			
	Bessel xiii. 773 ...	3.20,2	21,7	23,5	25,2	22,6	19,0			125.58.22,93				100,49	97.21.38,09	B.			
	Bessel xiii. 1023 ...	0.40,5	42,5	41,4	44,2	43,4	39,1			130.35.42,03	29,806	47,0	40,4	121,85	101.59.18,55	B.			
	H. C. 25979	0.2,2	4,5	1,9	6,6	4,9	1,0			134.55.3,49				149,31	106.19.7,47	B.			
	(g) H. C. 26210	4.28,4	30,9	27,6	31,8	31,4	28,2			137.14.29,58				168,76	108.38.53,01	B.			
	H. C. 26283	2.40,0	41,0	41,3	44,3	42,7	39,0			137.42.42,10				173,25	109.7.10,02	B.			
	H. C. 26410	3.37,9	36,3	39,6	41,6	39,0	36,1			134.53.39,38				149,14	106.17.43,19	B.			
	(h) Astræa	2.20,0	19,0	22,3	23,5	20,6	18,4			124.47.21,23				38,3	96,35	96.10.32,25	B.		
Apr.28	(i) ☉ N.L.	3.37,0	39,0	36,8	34,0	35,5	32,7		9,383	+4	104.18.51,17	29,563	45,4	47,4	45,06	75.41.10,90	B.		
	☉ S.L.	0.25,5	31,0	24,8	32,4	25,6	24,9		9,383	+4	104.50.41,82				45,93	76.13.2,42	B.		
	H. C. 21226	0.39,7	42,2	40,6	45,1	41,3	38,6		9,394		112.35.54,06	29,546	44,0	40,5	61,13	83.58.29,86	B.		
	Bessel xi. 18	2.15,2	16,2	16,0	19,5	15,5	12,4		9,394		119.37.29,05				78,37	91.0.22,09	B.		
	(k) 3 Draconis R. ...	1.20,7	22,3	21,2	26,4	19,6	19,1		8,754		261.46.47,89				16,13	22.25.37,31	B.		
	3 Draconis	3.55,0	51,4	56,3	56,2	53,4	49,6		8,754		51.4.20,67					22.25.39,21	B.		
	(l) Bessel xi. 688 ...	4.16,8	14,5	18,7	20,2	15,0	12,8			112.54.17,48				61,78	84.16.53,93	B.			
	(c) Bessel xi. 779 ...	3.39,4	37,8	39,9	42,9	37,2	34,7			114.38.39,62				65,66	86.1.19,95	B.			
	Bessel xi. 895 ...	2.30,3	28,4	29,6	32,8	27,5	25,7			119.42.29,72				78,60	91.5.22,99	B.			
	Bessel xi. 940 ...	4.21,8	19,2	23,0	25,7	20,0	18,9			113.34.22,58	29,540	42,6	38,3	63,52	84.57.0,77	B.			
	B.A.C. 4134	4.42,7	39,3	42,9	35,7	40,0	38,5			121.44.41,08				85,07	93.7.40,82	B.			
	B.A.C. 4135 .....	...	...	...	...	...	...			121.44.20,95				85,06	93.7.20,68	B.
	Bessel xii. 249 ...	4.14,2	10,6	15,4	17,4	12,9	10,0			123.34.14,53				91,12	94.57.20,32	B.			
	(m) * R. 12 ^h . 18 ^m . 49 ^s	4.55,4	56,0	55,1	58,8	55,4	52,9			123.49.56,92				92,03	95.13.3,62	B.			
	Bessel xii. 308 ...	...	...	...	...	...	...			123.51.10,45				92,11	95.14.17,23	B.
	Bessel xii. 370 ...	...	...	...	...	...	...			123.48.45,66				91,96	95.11.52,29	B.
	Bessel xii. 474 ...	1.20,5	21,2	22,3	24,5	21,2	18,0			126.50.53,47				103,60	98.14.11,74	B.			
	(n) Bessel xii. 561 ...	4.2,5	1,4	6,0	7,0	2,4	0,5			126.34.15,28				102,45	97.57.32,40	B.			
	Bessel xii. 729 ...	2.56,5	54,9	56,4	58,8	53,4	52,8			119.37.56,25	29,532	41,8	37,3	78,90	91.0.49,82	B.			
	Bessel xii. 796 ...	4.50,3	47,5	53,0	54,6	48,6	45,8			125.24.51,25				98,05	96.48.3,97	B.			
	Bessel xii. 802 ...	...	...	...	...	...	...			125.25.16,51				98,08	96.48.29,26	B.
	46 Virginis	1.5,4	4,3	4,0	8,8	3,5	2,4			121.11.5,02				83,50	92.34.3,19	B.			
	(o) Polaris SP. R. ...	2.17,5	18,0	18,8	21,4	16,1	14,9			285.41.7,46				48,29	1.29.14,42	B.			
	(o) Polaris SP.	1.13,3	10,0	11,1	11,4	10,2	7,9			27.9.59,61					1.29.14,01	B.			
	(o) Polaris SP. R. ...	1.60,2	59,7	60,4	62,8	56,4	57,0			285.41.9,87					1.29.16,83	B.			
	(o) Polaris SP.	0.64,8	61,0	62,4	63,3	61,7	59,5			27.9.59,99					1.29.13,63	B.			
	Astræa	2.34,9	33,0	34,7	36,3	32,8	30,4			124.32.34,37	29,520	40,5	35,2	95,14	95.55.44,18	B.			
	α ^a Libræ	1.15,0	12,5	13,4	15,5	13,2	9,9			134.1.13,57				143,00	105.25.11,24	B.			
Apr.29	(p) ☉ N.L.	0.4,8	5,3	2,3	6,9	3,3	2,2	+9,8			104.0.4,17	29,500	45,4	49,0	44,32	75.22.23,20	B.		
Apr.30	(g) ☉ S.L.	4.19,7	22,0	18,0	23,4	20,2	18,6		13,078		104.13.15,93	29,542	45,6	48,4	44,79	75.35.35,43	B.		
	☉ N.L.	2.33,2	34,0	32,3	37,7	32,8	50,1		13,078		103.41.30,02				43,94	75.3.48,67	B.		
May 1	Astræa	3.63,0	62,8	64,3	66,3	63,8	58,6		11,010		124.18.43,40	29,600	46,2	39,5	93,70	95.41.51,81	B.		
May 5	Zenith Point	0.18,2	18,9	16,3	20,7	19,3	18,1		9,299		66.25.33,29						B.		

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6. ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) 'One north-following.' (b) 'Appeared double.' The star is Σ 1560. (c) 'One south-preceding.' (d) The Circle reading has been increased 1'. See the observations of May 6, 14 and 19. (e) 'Two of Mag. 10 precede.' (f) 'A very faint star a little higher in the field.' (g) Negative correction for Runs. (h) 'Good.' (i) 'N.L. more satisfactorily observed than S.L.' Too far from the middle of the field. (j) Faint from cloud. (k) Cloudy. (l) For the R.A. see April 19. (m) 'One of Mag. 10 south-preceding, and another of Mag. 9.10 north-preceding. The latter appears to be Bessel xii. 553. (n) North wind; the mercury tremulous. Times of bisection by Molyneux, 13^h.6^m.28^s, 13^h.8^m.18^s, 13^h.15^m.23^s and 13^h.17^m.33^s. Molyneux fast by a Circle transit of α^h Libræ, 49^s. (p) Barely seen through cloud.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.			Observer.																		
		A	B	C	D	E	F						Int.	Ext.																							
		"	"	"	"	"	"						"	"		"	"	"		"	"	"	"	"													
May 6	(a) B.A.C. 4134.....	4. 41,9	44,6	39,8	45,1	43,6	40,5	+9,8	10,939		121. 44. 42,48	29,793	44,2	41,8	85,18	93. 7. 42,37	B.																				
	B.A.C. 4135.....	...	...	...	...	...	...	121. 44. 22,91																							
	(b) Bessel XII. 308..	1. 9,2	11,4	9,5	13,5	11,5	7,8	123. 51. 10,87																													
	Bessel XII. 414..	2. 2,9	3,8	1,9	6,4	3,3	0,3	121. 57. 3,77																													
	(c) Bessel XII. 490..	1. 49,5	51,5	48,7	52,1	49,9	47,4	120. 6. 50,43																													
	46 Virginis.....	1. 3,5	4,6	1,4	7,1	3,6	0,7	121. 11. 3,85																													
	(d) γ Virginis.....	3. 12,8	12,0	12,5	14,6	12,0	9,5	128. 33. 13,28																													
	Spica R.....	0. 18,1	19,5	16,6	22,3	19,6	19,6		6,368	+1	183. 51. 35,10	29,789	44,0	41,3	83,50	92. 34. 2,06	B.																				
	(e) Spica.....	3. 14,0	14,5	14,4	16,3	14,5	12,0	6,368	+4	128. 59. 30,59	111,35								99. 56. 39,34	113,43	100. 22. 59,62	B.															
May 7	(f) \odot N.L.....	3. 32,4	32,5	33,0	35,0	34,1	33,1		10,509	+4	101. 38. 25,45	29,787	47,8	53,6	40,67	73. 0. 40,83	B.																				
	\odot S.L.....	0. 16,5	21,3	15,6	20,9	20,7	15,9	10,509	+4	102. 10. 9,46	41,47								73. 32. 25,64	B.																	
May 8	(g) \odot S.L.....	2. 48,3	48,8	47,6	48,7	50,3	45,1		7,683	-2	101. 53. 37,34	29,692	48,5	56,3	40,69	73. 15. 52,74	B.																				
	\odot N.L.....	0. 62,0	63,2	61,5	63,3	64,3	58,3	7,683	101. 21. 50,74																												
	\odot N.L.....	2. 18,4	19,8	18,5	21,9	21,4	14,7		9,897		-1								102. 27. 25,10	29,632	51,3	52,3	41,80	73. 49. 41,61	B.												
	\odot N.L.....	...	...	...	...	...	...	9,802	102. 27. 24,59																						
	\odot N.L.....	...	...	...	...	...	...	9,678	+1		102. 27. 24,00								73. 49. 40,51								B.				
	\odot N.L.....	...	...	...	...	...	...	9,598	+2		102. 27. 24,09								73. 49. 40,60								B.				
	\odot N.L.....	...	...	...	...	...	...		102. 27. 23,36		73. 49. 39,87								B.												
	Regulus.....	0. 62,9	64,2	60,8	66,5	64,4	59,1		105. 56. 3,33		47,38								77. 18. 25,42								B.										
	Bessel XII. 474..	0. 54,5	56,9	54,8	59,3	57,3	52,8		126. 50. 56,23		102,62								98. 14. 13,56								B.										
	(h) Bessel XII. 561..	4. 15,0	16,1	18,0	20,0	18,2	14,0		126. 34. 18,28		101,48								97. 57. 34,47								B.										
	Bessel XII. 639..	3. 50,4	50,7	52,4	54,5	53,4	49,2		126. 28. 53,03		101,12								97. 52. 8,86								B.										
	Bessel XII. 820..	1. 38,5	39,1	36,8	41,8	39,6	36,0		121. 21. 39,15		83,08								92. 44. 36,94								B.										
	Bessel XII. 882..	3. 4,0	3,8	4,7	7,6	5,1	0,5		122. 43. 5,30		87,39								94. 6. 7,40								B.										
	Bessel XII. 939..	3. 55,2	54,5	55,6	58,4	56,4	51,7		121. 48. 56,57		84,49								93. 11. 55,77								B.										
	Bessel XII. 953..	...	...	...	...	...	...		121. 49. 39,23		84,53								93. 12. 38,47								B.				
	Bessel XII. 1059..	0. 6,7	8,0	4,6	9,4	8,6	4,6		131. 15. 7,02		123,71								102. 38. 45,44								B.										
	Bessel XII. 76..	2. 3,7	4,4	3,3	7,6	5,4	1,2		131. 17. 4,95		123,90								102. 40. 43,56								B.										
	H. C. 24610.....	4. 42,9	41,2	43,4	46,2	44,3	39,4		123. 29. 44,43		90,00								94. 52. 49,14								B.										
	(i) H. C. 24624.....	...	...	...	...	...	...		123. 23. 59,91		89,68								94. 47. 4,30								B.				
	Astræa.....	0. 27,4	29,0	26,4	31,1	29,4	25,2		123. 50. 27,56		91,85								95. 13. 34,12								B.										
	May 9	Regulus.....	1. 4,2	6,4	1,7	7,3	6,3	0,4	+9,8		10,033								-2								105. 56. 4,06	29,669	52,2	55,3	47,15	77. 18. 25,70	B.				
		\odot N.L.....	1. 62,4	63,9	61,3	64,4	64,3	59,1	10,956		106. 31. 49,71																										
		\odot N.L.....	10,821		-1																106. 31. 49,28								48,16	77. 54. 12,36	B.
		\odot N.L.....	10,709																		106. 31. 48,44								77. 54. 11,93	B.	
		\odot N.L.....	10,556		+1																106. 31. 48,52								77. 54. 11,09	B.	
		\odot N.L.....	10,428		+2																106. 31. 48,15								77. 54. 11,17	B.	
		\odot N.L.....			106. 31. 48,15																77. 54. 10,80								B.		
(k) χ Leonis.....		4. 4,5	5,1	4,4	7,7	5,1	0,0		110. 29. 6,13	81. 51. 36,25	B.																										
σ Leonis.....		1. 47,3	49,4	45,4	50,2	48,5	44,2		111. 46. 48,08	58,20	83. 9. 20,77	B.																									
(k)(l) Bessel XI. 920..		0. 18,5	21,9	15,9	20,6	20,2	16,2		115. 55. 19,87	67,53	87. 18. 1,89	B.																									
Bessel XII. 44....		2. 33,0	34,6	32,7	36,8	35,9	30,5		123. 42. 34,75	89,69	95. 5. 38,93	B.																									
(m) Bessel XII. 92....		0. 47,2	50,1	45,2	50,2	48,9	45,3		119. 25. 48,06	76,53	90. 48. 39,08	B.																									
Bessel XII. 208..		1. 59,0	60,2	57,2	62,4	59,5	56,0		121. 46. 59,68	83,42	93. 9. 57,59	B.																									
Bessel XII. 272..		1. 19,6	21,1	18,2	23,8	22,6	18,5		123. 26. 21,07	88,77	94. 49. 24,33	B.																									
(n) Bessel XII. 561..		4. 16,7	17,3	18,3	20,2	18,9	14,0		126. 34. 18,97	100,54	97. 57. 34,00	B.																									
Bessel XII. 639..		3. 53,2	53,4	54,0	55,9	54,9	50,5		126. 28. 54,92	100,18	97. 52. 9,59	B.																									
(o) Bessel XII. 729..		2. 55,1	57,0	53,8	57,4	56,0	51,8		119. 37. 56,13	77,27	91. 0. 47,89	B.																									
(a) Bessel XII. 796..		4. 52,0	55,0	50,2	54,9	54,7	50,5		125. 24. 52,85	96,03	96. 48. 3,37	B.																									
Bessel XII. 867..		1. 58,1	59,6	56,4	59,9	59,7	54,4		118. 51. 58,65	75,16	90. 14. 48,30	B.																									
(p) Polaris SP. R....		2. 32,6	31,7	31,7	34,2	31,8	30,0		285. 41. 12,82	47,30	1. 29. 18,61	B.																									
(p) Polaris SP.....		1. 16,4	13,9	13,5	14,6	16,4	11,7		27. 9. 54,67		1. 29. 18,14	B.																									
(p) Polaris SP. R....		3. 11,3	10,4	11,0	13,9	9,5	8,4		285. 41. 13,29		1. 29. 19,08	B.																									
(p) Polaris SP.		1. 58,5	55,8	55,7	56,9	58,2	52,8		27. 9. 55,02		1. 29. 17,79	B.																									
H. C. 26410.....		3. 46,8	45,2	46,9	49,4	48,2	43,3		134. 53. 47,88	29,652	50,2	48,6	145,86	106. 17. 48,23	B.																						
(q) Astræa.....		2. 3,7	4,5	2,8	7,2	4,3	1,2		123. 47. 4,63								90,26	95. 10. 9,38		B.																	
		ϵ Bootis R.....	2. 12,2	11,8	8,9	15,0	13,2	11,9		0,755	+3	221. 55. 25,55				26,42	62. 17. 42,38	B.																			
		ϵ Bootis.....	2. 25,8	23,0	24,4	24,4	25,6	19,5	0,755	90. 55. 37,24		62. 17. 38,15									B.																

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Negative correction for Runs. (b) 'Another precedes.' (c) 'No star seen in the place of H. C. 23583. (d) Seen but for a second: very cloudy. (e) Extremely faint from cloud. (f) Delay caused by cloud. (g) Without the dark glass and very faint. (h) 'Two faint stars of nearly the same N.P.D. preceded about an interval.' See April 28. (i) The micrometer reading was entered 26,131, after turning the micrometer head. The observer doubted whether it should not be 26,531, which appears to be the correct reading. (k) Cloudy. (l) 'Not good.' (m) 'Two stars of the same R.A.' The other is Bessel XII. 93. (n) 'Two stars of Mag. 10½ precede.' (o) The Circle reading was 1' less. See the observations of May 13, 15 and 19. (p) Times of bisection by Molyneux, 13^h. 4^m. 31^s, 13^h. 5^m. 27^s, 13^h. 11^m. 25^s and 13^h. 12^m. 10^s. Molyneux fast on Hardy, 1^m. 37^s. (q) 'Good.' (r) Wrong setting: the direct observation was considered good.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5".	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						"	"		"	"	"	
May 9	ξ ¹ Libræ..... 17 Libræ..... 18 Libræ.....	3.43,1 4.43,1 ...	42,6 42,5 ...	43,4 44,7 ...	45,4 47,2 ...	44,3 45,5 ...	39,0 40,1 ..	+9,8			129.53.44,18 129.9.45,38 129.9.5,20	29,652	50,2 48,6		115,60 112,02 111,96	101.17.14,27 100.33.11,89 100.32.31,65	B. B. B.		
May 10	(a) ☉ N.L..... ☉ S.L.....	4.36,2 1.17,0	35,4 19,1	35,6 14,4	38,3 20,2	37,4 19,0	33,0 14,0		9,692 9,692	+2½ +2½	100.49.44,67 101.21.24,88	29,612	54,5 61,7		38,59 39,36	72.11.57,75 72.43.38,73	B. B.		
May 13	(b) Zenith Point.... Bessel XII. 639.. Bessel XII. 729.. (c) Bessel XII. 796.. Bessel XII. 882.. H. C. 24697..... Bessel XIII. 249.. Bessel XIII. 252.. Bessel XIII. 363.. Bessel XIII. 444.. (d) Bessel XIII. 445.. (e) H. C. 25199..... (f) α Virginis..... (f) γ Virginis..... (g) ☉ N.L..... ☉ N.L..... ☉ N.L..... ☉ N.L..... ☉ N.L..... α ¹ Libræ..... (h) δ Libræ R..... β Libræ R..... β Libræ.....	4.61,4 3.48,0 2.52,6 4.48,2 2.63,7 0.48,0 3.28,8 ... 4.4,2 1.25,0 ... 2.29,5 1.14,5 4.6,7 2.40,0 1.10,3 3.12,5 3.14,0 4.55,2	60,4 47,9 52,5 47,0 62,4 48,8 27,2 ... 3,6 25,5 ... 29,0 15,0 5,6 39,3 10,2 10,1 12,2 52,5	58,3 49,9 52,1 49,6 63,3 48,8 28,8 ... 6,3 22,9 ... 28,8 13,7 7,2 39,7 9,2 10,7 13,0 56,7	64,3 53,5 57,3 53,8 67,7 51,9 32,4 ... 9,6 29,2 ... 34,0 18,8 11,6 43,4 14,0 15,7 17,3 58,6	59,3 49,3 52,1 48,4 62,3 48,6 27,6 ... 4,6 24,9 ... 30,0 14,1 5,7 39,5 10,5 11,4 13,5 54,3	59,4 45,8 48,2 43,7 59,4 45,6 25,3 ... 0,5 21,5 ... 26,8 11,0 2,2 36,4 7,4 9,7 11,1 50,8		8,417 7,519 ... 8,171 8,171 ... 10,797 10,638 10,462 10,331 10,148 7,995 5,883 5,883		-2 -1 ... +1 +2 +2 +4	66.25.33,51 126.28.50,30 119.37.53,42 125.24.50,02 122.43.4,13 130.15.48,46 131.29.21,19 131.28.29,48 132.24.6,13 131.16.25,28 131.17.3,40 133.3.8,60 128.11.14,92 123.54.7,85 127.27.30,79 127.27.30,71 127.27.30,94 127.27.30,19 127.27.30,48 134.1.10,65 186.18.54,60 185.24.40,37 127.26.21,71	30,300 30,292	49,7 48,0 40,0	42,8 40,0	103,72 80,00 99,42 89,64 122,00 128,82 128,74 134,31 127,58 127,64 138,47 111,81 94,28 108,51 ... 145,24 104,53 108,48	97.52.8,51 91.0.47,91 96.48.3,93 94.6.8,26 101.39.24,95 102.53.4,50 102.52.12,71 103.47.54,93 102.40.7,35 102.40.45,53 104.27.1,56 99.34.41,22 95.17.16,62 98.50.53,79 98.50.53,71 98.50.53,94 98.50.53,19 98.50.53,48 105.25.10,38 97.55.31,44 98.49.49,62 98.49.44,68	B. 	

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Extremely faint, owing to cloud. (b) No correction for Runs. (c) 'Followed by two faint stars.' (d) 'Follows the preceding about 3'.'
 (e) The N.P.D. of H. C. is 1' less. (f) Had definition. (g) Extremely unsteady. (h) Could not be observed directly. (i) Cloudy.
 (k) Very steady. (l) 'Two fainter preceding.' (m) Extremely faint. (n) 'Good.' (o) Very badly defined.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refract.	Apparent N.P.D. from the Observation.	Observer.				
		A	B	C	D	E	F						Int.	Ext.							
		"	"	"	"	"	"						"	"				"	"	"	"
May 15	(a) Bessel XII. 729..	2. 52,2	52,9	52,0	57,5	52,5	48,6	+9,8	7,191	+2	119. 37. 53,57	30,113	50,5	45,8	79,01	91. 0. 47,07	B.				
	(b) Bessel XII. 976..	1. 51,7	52,4	50,5	56,9	52,4	48,3				119. 41. 52,65				79,20	91. 4. 46,34	B.				
	(c) <i>g</i> Virginis.....	3. 9,1	8,0	8,9	13,6	9,5	5,4				128. 33. 10,12				111,44	99. 56. 36,05	B.				
	Bessel XIII. 55...	0. 60,0	61,4	61,4	64,9	61,3	57,3				121. 56. 1,37				85,98	93. 19. 1,84	B.				
	(d) H. C. 24624.....	3. 55,3	55,9	56,4	61,5	56,6	51,7				123. 23. 57,52				90,85	94. 47. 2,86	B.				
	Bessel XIII. 206..	1. 5,6	6,3	5,0	10,7	7,0	3,7				128. 1. 6,75				109,05	99. 24. 30,29	B.				
	Bessel XIII. 261..	1. 21,6	22,4	20,6	26,4	23,3	19,9				133. 1. 22,82				135,97	104. 25. 13,28	B.				
	Bessel XIII. 409..	2. 30,0	30,2	30,0	36,2	31,4	26,7				123. 47. 31,57				92,22	95. 10. 38,28	B.				
	<i>η</i> Libræ.....	2. 38,0	37,6	38,6	44,4	39,6	35,5				133. 47. 39,80				30,062	45,8	40,6	142,39	105. 11. 36,68	B.	
	<i>θ</i> Libræ R.....	1. 59,1	59,4	60,0	64,0	60,8	57,1				177. 57. 59,42							150,28	106. 17. 12,37	B.	
	<i>θ</i> Libræ.....	2. 10,0	9,5	10,4	14,9	11,4	8,4				134. 53. 9,37							106. 17. 14,14	B.		
	(f) N.L.....	4. 23,8	21,8	24,9	29,2	24,0	20,7				9,559 -2							159,09	107. 23. 52,87	B.	
	N.L.....	...	...	...	...	...	...				9,524 -1							107. 23. 51,35	B.	
	N.L.....	...	...	...	...	...	...				9,383							107. 23. 51,94	B.	
	N.L.....	...	...	...	...	...	...				9,253 +1							107. 23. 52,22	B.	
	N.L.....	...	...	...	...	...	...				9,155 +2							107. 23. 51,73	B.	
	(f) <i>φ</i> Ophiuchi.....	2. 51,2	50,0	52,1	56,3	51,4	48,6				134. 52. 52,55							150,24	106. 16. 57,28	B.	
	(a)(g) B.A.C. 5579 R..	2. 13,1	13,4	14,6	19,4	15,4	12,6				6,809							159,53	107. 26. 59,07	B.	
	B.A.C. 5579.....	1. 30,6	30,3	29,6	35,2	31,5	28,7				6,809 +3							107. 26. 51,57	B.		
May 16	(h) <i>⊙</i> S.L.....	1. 25,4	26,6	26,1	30,6	28,3	23,0	8,024	+2	99. 52. 8,85	30,019	52,0	60,5	37,83	71. 14. 21,17	B.					
	(i) <i>⊙</i> N.L.....	4. 39,4	41,3	38,7	42,3	40,5	35,4			99. 20. 21,41				37,08	70. 42. 32,98	B.					
May 17	Bessel XII. 569..	3. 10,0	10,6	9,3	13,4	10,6	6,9	13,789	+1	120. 33. 11,18	29,892	53,8	53,8	79,79	91. 56. 5,46	B.					
	Bessel XII. 677..	1. 33,3	35,2	32,4	38,6	35,2	32,2			123. 41. 35,00				89,71	95. 4. 39,20	B.					
	(k) Bessel XII. 953..	4. 30,9	34,5	28,6	33,8	33,0	30,2			121. 49. 33,30				83,63	93. 12. 31,42	B.					
	(a) Bessel XIII. 18..	0. 30,2	33,0	28,6	34,2	32,8	29,6			123. 35. 31,57				89,37	94. 58. 35,43	B.					
	Arcturus R.....	2. 14,8	12,6	12,4	14,1	13,4	9,7			214. 10. 54,53				29,881	52,7	50,4	36,71	70. 2. 23,69	B.		
	Arcturus.....	1. 28,6	27,0	26,2	27,4	27,3	22,8			98. 40. 8,27							70. 2. 19,47	B.			
	<i>α</i> Serpentis R....	1. 34,7	34,2	33,0	36,6	34,2	31,3			7,287				201. 7. 31,06	29,884	52,7	51,2	58,67	83. 6. 9,12	B.	
	<i>α</i> Serpentis.....	2. 37,2	36,7	36,0	39,6	36,6	33,3			7,287				111. 43. 33,96				83. 6. 7,12	B.		
May 19	(f) <i>⊙</i> N.L.....	0. 17,2	21,3	16,8	23,2	19,8	15,6	10,782	8,386	+2	98. 40. 2,78	29,772	52,7	53,6	36,33	70. 2. 13,60	B.				
	<i>⊙</i> S.L.....	1. 56,3	56,6	55,3	59,9	55,9	50,9				99. 11. 40,15				37,07	70. 33. 51,71	B.				
	<i>λ</i> Draconis R....	1. 20,0	20,0	18,5	25,0	20,2	18,5				8,648				264. 21. 48,98	29,871	52,4	48,8	18,90	19. 50. 33,63	B.
	<i>λ</i> Draconis.....	3. 50,3	48,5	49,9	52,4	50,6	44,6				8,648 +1				48. 29. 19,22				19. 50. 34,81	B.	
	(m) <i>β</i> Leonis R.....	2. 25,5	25,9	24,3	30,6	26,3	22,7				9,191 -2				209. 37. 43,36				43,65	74. 35. 41,80	B.
	<i>β</i> Leonis.....	3. 7,8	7,9	6,9	12,4	7,7	3,2				9,191 +2				103. 13. 25,70				74. 35. 43,84	B.	
	(n) Bessel XII. 249..	4. 13,2	11,7	14,5	17,7	13,5	9,5				123. 34. 14,72				29,895	50,4	47,5	90,46	94. 57. 19,67	B.	
	Bessel XII. 356..	3. 39,7	38,4	39,8	44,1	39,2	35,5				116. 38. 40,65							70,25	88. 1. 25,39	B.	
	Bessel XII. 414..	2. 4,8	4,0	3,3	7,7	4,3	0,5				121. 57. 4,78							85,12	93. 20. 4,39	B.	
	Bessel XII. 474..	0. 54,8	56,0	54,8	59,8	55,3	51,4				126. 50. 55,65							102,86	98. 14. 13,00	B.	
	(n) Bessel XII. 639..	3. 51,0	49,4	53,0	55,4	51,6	47,6				126. 28. 52,60							101,35	97. 52. 8,44	B.	
	Bessel XII. 729..	2. 57,7	56,4	57,4	61,5	55,9	52,9				119. 37. 57,92							78,17	91. 0. 50,58	B.	
	Bessel XII. 796..	4. 43,2	41,3	45,4	48,8	43,4	38,4				125. 24. 44,95							97,14	96. 47. 56,58	B.	
	(o) Bessel XII. 802..	...	...	...	...	...	...				125. 25. 18,59							97,18	96. 48. 30,26	B.
	Bessel XII. 882..	2. 63,0	62,2	64,5	68,6	62,6	58,9				122. 43. 4,28							87,59	94. 6. 6,36	B.	
	(k) Bessel XII. 976..	1. 59,6	60,0	60,0	65,3	59,0	55,4				119. 42. 0,53							78,37	91. 4. 53,39	B.	
	Bessel XII. 1059..	0. 7,2	7,5	5,4	11,1	6,3	3,5				131. 15. 6,87							123,99	102. 38. 45,35	B.	
	Bessel XIII. 76...	2. 5,0	3,8	4,6	7,9	4,1	1,3				131. 17. 5,13							124,18	102. 40. 43,80	B.	
	H. C. 24624.....	3. 58,9	57,1	60,2	63,2	58,2	54,4				123. 23. 59,95							89,88	94. 47. 4,32	B.	
	Bessel XIII. 206..	1. 8,1	7,8	7,6	12,4	7,6	4,5				128. 1. 8,37							107,89	99. 24. 30,75	B.	
	Spica.....	4. 31,8	29,5	33,2	35,2	31,4	27,8				128. 59. 32,95							112,37	100. 22. 59,81	B.	
	Bessel XIII. 363..	4. 11,1	8,7	12,6	14,9	10,0	5,8				132. 24. 11,88							130,68	103. 47. 57,05	B.	
	(k) Astræa.....	1. 14,6	14,3	13,7	18,3	13,5	10,5				123. 21. 14,55				29,916	48,4	45,6	90,14	94. 44. 19,18	B.	
	H. C. 26541.....	2. 18,6	17,6	19,1	22,2	18,9	15,3				137. 27. 19,17							169,55	108. 51. 43,21	B.	
	Bessel XIV. 548..	4. 31,6	29,6	32,8	35,2	30,7	26,9				132. 54. 32,60							134,42	104. 18. 21,51	B.	
	H. C. 26746.....	3. 37,7	35,4	38,0	41,3	36,9	33,8				139. 8. 38,37							186,93	110. 33. 19,79	B.	
	Bessel XIV. 833..	2. 30,9	28,8	29,8	33,9	29,7	26,5				133. 22. 30,73							137,43	104. 46. 22,65	B.	

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Faint. (b) Very faint from cloud. (c) Very bad definition. (d) 'One preceding.' (e) Rather unsteady. (f) Cloudy. (g) 'Not good.'
 (h) Very great motion. (i) Negative correction for Runs. (k) Very faint. (l) Unsteady. (m) Tremor of the mercury: the wind very high.
 (n) Faint from daylight. (o) 'Follows the preceding by about 17'.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
May 19	Bessel xiv. 921..	0.42,0	42,3	41,5	45,4	41,6	38,4	+9,8	24,947		129.30.42,10	29,916	48,4	45,6	115,42	100.54.12,01	B.
	Bessel xiv. 1013.	3.58,7	56,0	59,0	61,4	57,3	53,7				133.8.58,97						
	(a) Bessel xiv. 1023.	...	...	...	...	...	...				133.3.47,46
	H. C. 27516.....	4.49,9	47,1	51,6	52,4	47,6	44,1				130.4.50,35						
May 21	(b) Astræa.....	2.58,6	58,8	57,9	60,9	59,9	54,7	+5,2			123.17.58,97	30,209	55,6	53,8	89,31	94.41.2,82	B.
	(c) Irene.....	2.44,0	44,9	44,5	47,5	45,8	40,4				132.2.44,98						
May 22	(d) Irene.....	4.17,2	20,7	16,6	18,9	20,3	14,9				132.4.17,98	30,211	55,0	52,3	128,77	103.28.1,34	T.
May 23	☉ S.L.....	3.29,0	29,6	28,9	31,2	30,6	23,6	15,000			98.23.29,42	30,244	58,5	59,6	36,07	69.45.40,03	T.
	(e) Polaris SP.....	1.39,1	37,9	35,6	39,5	39,4	34,1				27.9.51,22						
	(e) Polaris SP.....	3.6,1	3,7	3,9	7,5	5,6	0,3				27.9.49,09						
	(d)(e) Polaris SP.....	4.51,2	51,0	47,2	52,1	51,8	47,5				27.9.42,51						
	(e) Polaris SP.....	1.40,0	38,6	37,1	41,6	39,2	35,4				27.9.50,50						
	Bessel xiv. 190..	3.53,3	52,0	54,4	58,3	54,9	57,1				133.8.55,68						
	(f) Astræa.....	0.29,0	28,8	26,9	30,8	30,2	23,5				123.15.8,28						
	(d) Bessel xiv. 512..	3.44,5	46,1	42,9	46,5	46,6	41,4				131.58.44,45						
	H. C. 26821.....	0.19,9	20,8	18,9	23,2	22,1	18,0				134.50.20,55						
	(d) Bessel xiv. 784..	4.23,4	24,3	21,7	26,0	25,2	20,9				133.19.23,48						
	(d)(g)ξ ² Libræ.....	4.49,8	49,7	48,1	51,5	50,2	45,1				129.24.49,03						
	(h) B.A.C. 4947.....	3.21,9	21,0	22,1	23,7	21,1	16,8				135.38.21,68						
	δ Bootis R.....	0.11,9	13,4	9,7	15,7	10,4	9,9				228.5.27,71						
	(i) δ Bootis.....	0.22,0	21,0	20,4	22,7	20,8	18,0				84.45.36,72						
	May 24	(d) ☉ N.L.....	3.58,8	60,0	55,7	63,0	58,7				54,9							8,556			97.39.28,42	30,360	57,8	60,2	35,15	69.1.38,11	T.
☉ S.L.....		0.33,0	35,0	30,2	37,1	34,2	28,0	98.11.3,11									
May 26	☉ S.L.....	0.17,6	17,4	15,0	19,0	16,4	12,3	12,743			97.49.19,16	29,880	53,7	53,0	35,33	69.11.29,03	T.
	(d) ☉ N.L.....	3.41,0	41,9	37,8	41,7	40,7	36,1				97.17.42,46						
	(k) Irene.....	1.29,2	28,9	28,5	30,5	28,5	24,4				132.11.28,58						
May 28	(l) ☉ S.L.....	3.56,9	54,4	56,6	61,0	55,1	50,3	10,000		+1½	97.28.56,71	30,198	57,1	61,5	34,63	68.51.5,88	T.
	Zenith Point....	1.18,6	19,4	17,3	22,1	18,4	14,7				66.25.33,46						
	(m) Irene.....	4.23,9	22,6	24,5	27,0	24,9	22,0				132.15.28,85						
May 31	Irene.....	4.26,4	27,0	27,4	30,7	27,8	22,0			+4	132.21.50,63	30,404	55,7	46,4	132,96	103.45.38,13	B.
June 2	☉ S.L.....	4.25,3	21,2	23,8	29,2	23,9	18,8	9,360			96.44.37,81	30,126	60,0	65,0	33,31	68.6.45,66	B.
	☉ N.L.....	2.49,0	45,4	46,3	50,8	47,3	40,3				96.13.0,34						
	Irene.....	1.23,9	27,2	23,2	29,0	27,2	21,6				132.26.38,94						
June 4	☉ S.L.....	4.19,0	17,9	18,5	22,7	18,3	12,5	9,360			96.29.32,24	29,847	55,2	53,6	33,43	67.51.40,21	B.
	Irene.....	2.52,3	52,0	51,8	56,1	53,0	46,2				132.31.33,45						
June 9	☉ S.L.....	3.46,0	44,8	44,7	48,5	45,4	40,6	+6,1	9,935		95.58.47,10	29,880	58,7	61,3	32,28	67.20.54,38	T.
	☉ N.L.....	2.14,3	12,0	12,2	15,1	13,8	8,5				95.27.14,45						
June 11	☉ N.L.....	2.8,1	6,5	5,6	11,0	6,4	1,3	8,008			95.17.48,44	29,940	57,0	59,0	31,60	66.39.55,04	T.
	☉ S.L.....	3.35,7	34,8	35,2	38,8	35,4	29,1				95.49.17,09						
June 14	☉ S.L.....	3.7,3	7,6	6,7	10,1	8,1	1,0	9,926			95.38.8,97	30,013	61,2	66,2	31,66	67.0.15,63	T.
	☉ N.L.....	1.35,1	33,9	31,4	36,1	35,0	29,0				95.6.35,27						
June 16	(n) ☉ N.L.....	1.7,1	9,1	6,0	13,0	9,8	3,4	9,872			95.1.10,77	29,842	62,9	64,1	30,82	66.23.16,59	T.
	☉ S.L.....	2.36,5	38,0	35,9	41,2	38,7	30,9				95.32.40,07						
	Zenith Point....	1.9,2	9,8	7,4	13,6	8,1	6,7				66.25.33,00						
	(o) Irene.....	2.39,5	41,1	40,5	44,5	42,0	35,6				133.7.41,08						

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) 'Follows the preceding about 25' and is brighter.' (b) Very faint. (c) 'At least of Mag. 9.' (d) Negative correction for Runs.
 (e) Times by Molyneux, 12h.59m.14s, 13h.4m.22s, 13h.9m.37s and 13h.15m.16s. Molyneux fast on Hardy, 2m.10s. These observations were used for calculating the value of the micrometer revolution. (f) Extremely faint. (g) 'One of Mag. 9 south-following.' (h) Not observed to be double. (i) Cloudy: the star barely visible at the direct observation. The sky had been thick all the evening. (k) 'Good observation.' (l) The other limb lost by wrong setting. (m) 'Pretty good.' (n) Cloudy. The circle reading for N.L. has been increased 1'. (o) Quite alone, and very faint. After this the sky was clouded.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
June 17	(a) S.L.	1. 6,3	7,1	5,6	11,1	6,4	2,3	+6,1	11,532		95. 30. 34,75	30,202	59,0	59,0	32,15	66. 52. 41,90	T.
	(b) N.L.	4. 33,9	35,0	32,1	38,4	35,1	31,0		11,532	+4½	94. 59. 3,68				31,46	66. 21. 10,14	T.
	Bessel xv. 683...	4. 10,9	13,9	10,0	16,6	13,3	2,5				132. 9. 11,05	30,354	54,2	49,7	130,56	103. 32. 56,61	T.
	(c) Irene.	1. 5,2	7,1	5,2	10,8	7,8	3,4				133. 11. 6,80				137,02	104. 34. 58,82	T.
	H. C. 29130.	2. 26,0	27,5	26,6	30,7	28,6	23,0				137. 37. 27,55				172,19	109. 1. 54,74	T.
	(d) H. C. 29306.	2. 30,4	31,1	30,8	35,9	32,7	27,4				136. 7. 31,88				158,72	107. 31. 45,60	T.
	H. C. 29460.	0. 62,7	63,0	60,8	66,0	63,5	58,0				141. 26. 2,53				217,60	112. 51. 15,13	T.
	B.A.C. 5436.	1. 21,9	23,7	20,7	27,2	23,9	18,0				138. 26. 22,83	30,360	53,4	49,5	180,49	109. 50. 58,32	T.
	(e) H. C. 29840.	1. 22,8	23,0	22,0	27,9	25,4	20,1				141. 41. 23,82				221,55	113. 6. 40,37	T.
	(e) ρ Ophiuchi. ....	...	...	...	...	...	...		12,122		141. 40. 39,60				221,37	113. 5. 55,97	T.
	(b) ω Ophiuchi.	4. 25,2	28,0	23,3	30,9	28,8	22,0		12,122		139. 43. 43,05				195,00	111. 8. 33,05	T.
	H. C. 30172.	1. 47,6	49,8	48,2	53,4	50,0	44,0				135. 26. 49,20				153,30	106. 50. 57,50	T.
	B.A.C. 5573.	1. 31,0	32,0	30,4	35,0	32,4	28,8			+2	136. 21. 31,71				160,78	107. 45. 47,49	T.
	H. C. 30609.	0. 21,8	24,4	21,8	28,1	24,9	20,2				145. 10. 23,53				289,55	116. 36. 48,08	T.
	H. C. 30519. ....	...	...	...	...	...	...		1,979		145. 13. 10,70				290,71	116. 39. 36,41	T.
June 19	⊙ N.L.	1. 14,6	16,2	13,0	15,3	17,0	9,3		10,395		94. 56. 6,27	30,076	68,0	71,9	30,48	66. 18. 11,75	T.
	⊙ S.L.	2. 46,0	44,1	44,7	46,3	46,3	39,1		10,395		95. 27. 36,74				31,14	66. 49. 42,88	T.
	(f) Irene.	3. 24,6	23,7	22,3	28,2	24,2	20,5				133. 18. 24,62	30,088	61,1	60,2	133,71	104. 42. 13,33	T.
	(g) H. C. 29488.	2. 24,9	25,0	21,9	27,2	26,0	21,6				137. 42. 24,92		60,7	58,5	163,40	109. 6. 48,32	T.
	B.A.C. 5436.	1. 28,3	29,0	25,0	30,8	29,0	24,5				138. 26. 28,05				175,62	109. 50. 58,67	T.
	ρ Ophiuchi.	0. 41,9	43,1	39,0	44,8	44,6	39,1				141. 40. 42,22				215,35	113. 5. 52,57	T.
	(h) B.A.C. 5478. ....	...	...	...	...	...	...		17,162		141. 38. 12,96				214,99	113. 3. 22,95	T.
	H. C. 30069.	2. 43,4	43,5	42,9	47,5	44,4	40,0				142. 32. 44,17				228,92	113. 58. 8,09	T.
	(b) H. C. 30248.	4. 40,4	42,6	37,5	42,5	42,9	38,0				144. 19. 40,58	30,092	59,4	57,0	263,20	115. 45. 38,78	T.
	(b) 25 Scorp.	4. 17,2	19,9	13,3	19,1	19,0	14,6				143. 49. 17,05				252,78	115. 15. 4,83	T.
	H. C. 30609.	0. 29,6	30,1	27,1	31,8	31,7	25,9				145. 10. 29,47				282,53	116. 36. 47,00	T.
	H. C. 30619. ....	...	...	...	...	...	...		1,997		145. 13. 16,26				283,67	116. 39. 34,93	T.
	(i) δ Herculis R.	0. 44,0	44,0	40,2	45,6	43,2	41,2		11,078		228. 0. 20,70			57,0	19,26	56. 12. 39,56	T.
	(k) Hebe.	1. 52,1	53,7	51,2	54,7	53,0	47,9				125. 36. 52,48	30,073	56,2	55,3	96,93	97. 0. 4,41	T.
June 21	⊙ S.L.	2. 11,4	13,5	10,9	14,6	14,3	5,9	+5,2	12,413		95. 26. 21,86	29,824	71,4	80,4	30,35	66. 48. 26,68	T.
	⊙ N.L.	0. 40,3	42,0	37,2	42,0	41,7	33,2		12,413		94. 54. 49,23				29,70	66. 16. 53,40	T.
	(l) Irene.	0. 59,0	61,0	56,9	65,0	61,0	57,0			+2½	133. 25. 59,79	29,676	66,2	65,4	131,31	104. 49. 45,57	T.
	(b) H. C. 28966.	4. 41,6	44,1	37,6	45,0	45,0	39,0				141. 19. 42,00				204,53	112. 44. 41,00	T.
	ε Herculis R.	1. 12,1	12,3	8,0	12,3	12,0	8,4		7,370		225. 22. 5,88	29,675	63,9	63,6	21,67	58. 50. 57,32	T.
	(m) ε Herculis.	2. 62,9	61,7	62,1	64,7	61,1	57,0		7,370	+2	87. 28. 57,28					58. 50. 53,42	T.
June 23	Zenith Point	0. 49,9	48,4	46,1	53,6	45,7	45,6		10,711		66. 25. 33,53						T.
June 24	⊙ N.L.	0. 37,2	36,9	35,3	41,2	36,3	32,3		8,905		94. 55. 59,47	30,220	63,6	65,3	31,02	66. 18. 4,96	T.
	⊙ S.L.	1. 66,5	63,9	64,9	69,3	64,6	59,0		8,905		95. 27. 27,89				31,70	66. 49. 34,06	T.
	Hebe.	1. 30,1	31,1	28,3	33,1	30,3	26,0				125. 56. 30,08	30,212	56,6	54,4	98,83	97. 19. 43,38	T.
June 25	⊙ S.L.	3. 64,8	65,6	66,1	68,5	65,9	59,0		11,086		95. 28. 43,07	30,208	68,0	70,5	31,39	66. 50. 48,93	T.
	⊙ N.L.	2. 34,8	35,1	33,9	37,2	34,8	28,3		11,086		94. 57. 11,82				30,72	66. 19. 17,01	T.
	H. C. 30544.	2. 37,3	38,5	35,5	41,8	38,0	34,0				143. 22. 37,97	30,216	61,0	60,4	243,55	114. 48. 15,99	T.
	H. C. 30744.	0. 30,3	31,8	27,0	33,2	31,0	27,2				136. 15. 30,17				155,65	107. 39. 40,30	T.
	(n) H. C. 30887.	2. 14,2	14,7	12,6	16,9	14,0	10,9				145. 17. 14,27				284,48	116. 43. 33,22	T.
	B.A.C. 5759.	2. 6,3	7,3	5,8	9,7	7,7	2,9				144. 52. 6,98				274,46	116. 18. 15,91	T.
	(b)(n) H. C. 31195.	4. 36,5	40,0	33,8	39,2	37,9	34,0				143. 24. 36,83				244,17	114. 50. 15,47	T.
	(b) λ Lyrae R.	4. 10,7	11,7	5,6	12,5	10,9	7,6		8,952		226. 9. 31,52	30,214	58,5	56,6	21,46	58. 3. 31,47	T.
	λ Lyrae.	1. 11,9	11,0	8,8	12,9	10,2	6,2		8,952		86. 41. 32,21					58. 3. 28,14	T.
	Hebe.	1. 6,5	7,0	4,1	8,9	5,9	1,1				126. 1. 5,77	30,212	56,9	55,1	98,99	97. 24. 19,23	T.
June 26	(o) ⊙ N.L.	3. 38,1	38,2	36,6	42,9	37,5	32,0		9,422		94. 58. 50,23	30,208	67,2	74,5	30,51	66. 20. 55,21	T.
	⊙ S.L.	0. 8,2	9,6	4,2	11,5	9,0	2,1		9,422		95. 30. 19,50				31,18	66. 52. 25,15	T.
	(b) H. C. 31195.	4. 35,3	39,1	33,9	39,3	38,1	34,2				143. 24. 36,58	30,180	64,5	62,0	243,08	114. 50. 14,13	T.
	H. C. 31429.	3. 7,9	9,7	7,7	12,0	9,2	4,4				137. 23. 9,03				164,74	108. 47. 28,24	T.

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Taken very doubtfully without the dark glass. (b) Negative correction for Runs. (c) Extremely faint: the observation doubtful. (d) 'A fainter north-following a few seconds.' (e) A third star north-following these was noticed. (f) Very faint, but the bisection considered good. (g) 'A double star and another of equal magnitude preceding.' (h) The star noticed June 17. (i) The direct observation lost by wrong setting. (k) 'An object of equal magnitude north preceding by 11s.' (l) The Planet very faint and observed hurriedly. (m) Faint from cloud. (n) Extremely faint. (o) Too unsteady for good observation.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Readings.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"		r.		"	Inch.	"	"	"	"	
June 26	H. C. 31646.....	4. 7,2	7,0	6,4	11,4	7,8	2,9	+5,2			136.44. 7,83	30,180	64,5	62,0	153,98	108. 8. 21,28	T.
June 27	(a) ☉ S.L.	2. 58,2	59,1	56,1	62,1	58,5	51,9		11,653		95. 32. 23,72	30,163	71,9	80,1	30,84	66. 54. 29,03	T.
	☉ N.L.	1. 27,5	28,3	24,7	30,7	28,3	21,6		11,653		95. 0. 52,65				30,18	66. 22. 57,30	T.
	ε Herculis R.	1. 19,9	19,3	16,1	22,9	18,8	16,3		7,647		225. 22. 8,16	30,160	65,2	62,6	22,07	58. 50. 55,44	T.
	ε Herculis	3. 8,0	6,0	6,1	10,9	5,0	0,2		7,647		87. 28. 55,61					58. 50. 52,15	T.
	α Herculis R. ...	1. 45,6	44,0	41,1	47,2	43,5	39,8		8,125		208. 47. 22,91				44,17	75. 26. 2,79	T.
	α Herculis	2. 64,3	63,8	62,8	69,1	63,9	58,7		8,125		104. 3. 43,38					75. 26. 2,02	T.
	λ Herculis R. ...	1. 28,6	27,0	22,0	31,0	26,5	23,7		8,801		220. 26. 51,71				27,93	63. 46. 17,75	T.
	λ Herculis	3. 48,0	44,9	44,2	50,1	45,3	41,0		8,801		92. 24. 11,22					63. 46. 13,62	T.
June 28	☉ N.L.	3. 16,2	18,1	15,9	24,1	17,5	12,1		9,939		95. 3. 19,15	30,170	72,8	78,6	30,33	66. 25. 23,95	T.
	(b) ☉ S.L.	4. 46,7	51,1	42,9	53,1	49,9	42,9		9,939		95. 34. 49,00				30,99	66. 56. 54,46	T.
	H. C. 32706.....	1. 5,8	8,2	2,3	12,1	5,2	4,1				136. 51. 6,47	30,165	60,6	56,1	161,83	108. 15. 22,77	T.
	H. C. 33180.....	0. 45,5	47,9	40,2	51,0	45,6	42,7				143. 55. 45,62				256,04	115. 21. 36,13	T.
	B.A.C. 6158.....	2. 16,7	18,8	14,5	22,7	17,2	12,7			+1	138. 27. 17,45				177,08	109. 51. 49,00	T.
	* R. 18 ^h . 7 ^m . 13 ^s .	4. 4,8	6,3	3,2	11,1	5,8	2,0			+2	137. 4. 6,05				163,75	108. 28. 24,27	T.
	(b)(c) * R. 18 ^h . 14 ^m . 36 ^s .	4. 58,5	61,0	54,2	64,2	59,1	54,1			+2	144. 59. 58,20	30,164	57,4	54,5	280,45	116. 26. 13,12	T.
	B.A.C. 6292.....	0. 17,9	21,9	15,6	23,1	20,6	14,8			+1	137. 35. 18,98				169,08	108. 59. 42,53	T.
	H. C. 34539.....	1. 31,7	33,1	28,3	35,9	33,0	27,5			+1½	135. 41. 31,73				152,67	107. 5. 38,87	T.
	H. C. 34532.....	2. 15,9	16,9	12,7	19,9	16,3	11,5				141. 22. 15,93				213,17	112. 47. 23,57	T.
	β Lyræ R.	3. 60,8	59,7	58,2	66,6	58,0	57,4		8,004		227. 24. 42,42				20,08	56. 48. 19,19	T.
	β Lyræ	0. 44,1	42,9	41,9	45,7	43,0	38,1		8,004		85. 26. 24,33					56. 48. 18,88	T.
	ζ Aquilæ R.	2. 29,6	30,5	28,3	34,9	30,2	26,6		10,558		207. 52. 18,80				46,41	76. 21. 9,14	T.
	ζ Aquilæ	3. 58,1	55,6	57,3	62,9	55,8	51,1		10,558		104. 58. 45,85					76. 21. 6,73	T.
	Hebe Hebe Hebe	1. 17,1 16,6 14,8	16,6 14,8 20,2	14,8 20,2 15,9	20,2 15,9 12,2	15,9 12,2	12,2				126. 16. 16,37	30,160	56,9	52,5	100,35	97. 39. 31,19	T.
June 30	(d) ☉ S.L.	0. 60,3	62,0	57,5	66,1	60,7	53,8	+5,0	10,166		95. 40. 56,77	30,134	70,1	76,4	31,21	67. 3. 3,05	T.
	(b) ☉ N.L.	4. 31,1	33,2	28,0	35,1	31,0	26,1		10,166		95. 9. 27,21				30,55	66. 31. 32,83	T.
	(b) H. C. 32847.....	4. 41,0	43,1	36,1	46,1	40,1	37,5				141. 4. 40,60	30,096	61,2	55,6	208,09	112. 29. 43,76	T.
	H. C. 32865.....	...	...	...	...	...	...		18,356		141. 1. 46,45				207,42	112. 26. 48,94	T.
	H. C. 33180.....	0. 46,1	47,8	41,6	52,0	45,1	42,6				143. 55. 46,00				255,74	115. 21. 36,81	T.
	B.A.C. 6158.....	2. 14,5	16,6	12,7	20,0	14,5	10,1				138. 27. 15,12				176,85	109. 51. 47,04	T.
July 3	(e) ☉ N.L.	2. 12,8	12,1	10,2	16,2	8,8	6,2		11,516		95. 21. 39,83	30,028	62,0	59,7	31,73	66. 43. 46,63	T.
	☉ S.L.	3. 42,2	39,8	41,1	42,7	38,0	34,0		11,516	+1½	95. 53. 8,71				32,42	67. 15. 16,20	T.
July 4	☉ S.L.	2. 56,0	54,2	54,3	58,0	51,2	49,3		9,629		95. 58. 2,05	30,020	60,5	59,6	32,52	67. 20. 9,64	T.
	☉ N.L.	1. 26,0	24,0	22,5	24,7	21,7	18,1		9,629		95. 26. 30,80				31,83	66. 48. 37,70	T.
	) N.L.	1. 34,4	35,0	33,1	35,9	30,6	28,9			-2	113. 6. 40,53	30,003	60,1	60,8	60,62	84. 29. 16,22	T.
	) N.L. ....	...	...	...	...	...	...		9,813	-1	113. 6. 40,76					84. 29. 16,45	T.
	) N.L. ....	...	...	...	...	...	...		9,620		113. 6. 41,15					84. 29. 16,84	T.
	) N.L. ....	...	...	...	...	...	...		9,480	+1	113. 6. 40,46					84. 29. 16,15	T.
	) N.L. ....	...	...	...	...	...	...		9,292	+2	113. 6. 40,81					84. 29. 16,50	T.
	B.A.C. 5712.....	1. 11,7	10,3	10,2	11,0	6,7	5,7		9,292	+1	136. 36. 24,18	30,008	50,9	47,7	161,65	108. 0. 40,90	T.
	H. C. 31000.....	1. 13,8	11,8	12,0	12,9	8,2	8,1				136. 31. 11,33				160,91	107. 55. 27,31	T.
	(b)(f) H. C. 31195.....	4. 33,4	34,0	30,9	33,1	29,8	28,6				143. 24. 31,55				248,94	114. 50. 15,56	T.
	H. C. 36501.....	4. 17,8	16,0	15,0	18,4	11,6	14,3				136. 4. 16,23	29,994	46,4	42,7	158,68	107. 28. 29,98	T.
	H. C. 36666.....	4. 11,3	11,1	8,9	12,0	6,8	7,6				137. 14. 10,32				168,95	108. 38. 34,34	T.
July 5	B.A.C. 6658.....	...	...	...	...	...	...		8,171		137. 14. 48,44				169,06	108. 39. 12,57	T.
	Hebe Hebe Hebe	2. 32,4 30,3 33,0	30,3 33,0 34,0	33,0 34,0 26,1	34,0 26,1 27,3	26,1 27,3	27,3				126. 52. 30,93				104,34	98. 15. 50,34	T.
	☉ N.L.	1. 52,5	51,4	51,2	54,0	49,0	46,7		10,158		95. 31. 47,83	29,963	62,0	66,0	31,48	66. 53. 54,38	T.
	☉ S.L.	3. 20,1	20,0	22,0	22,7	19,0	14,2		10,158		96. 3. 16,93				32,16	67. 25. 24,16	T.
	Zenith Point....	0. 19,6	22,4	16,9	24,0	17,0	17,6		9,352		66. 25. 32,93						T.
	(b)) N.L.	4. 29,8	34,7	28,0	31,7	29,8	26,8			-2	118. 29. 37,38	29,934	63,7	67,0	72,22	89. 52. 24,67	T.
	) N.L. ....	...	...	...	...	...	...		9,851	-1	118. 29. 36,80					89. 52. 24,09	T.
	) N.L. ....	...	...	...	...	...	...		9,708		118. 29. 36,12					89. 52. 23,41	T.
	) N.L. ....	...	...	...	...	...	...		9,511	+1	118. 29. 36,55					89. 52. 23,84	T.
	) N.L. ....	...	...	...	...	...	...		9,382	+2	118. 29. 35,58					89. 52. 22,87	T.

ONE REVOLUTION of the MICROMETER = 20'',841. ONE INTERVAL from the middle wire for an Equatorial Star = 16'',6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8'',00.

(a) Extremely unsteady and badly defined. (b) Negative correction for Runs. (c) Doubtful observation. 'A brighter north-preceding and another south-following.' The R.A. is approximate. (d) Unsteady. (e) Great motion. (f) 'A brighter north-preceding.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
July 5	(a)(b) H. C. 36403....	4. 14,1	20,0	12,1	20,1	15,3	13,2	+5,0		+2	137. 59. 15,47	29,965	54,9	51,6	172,83	109. 23. 43,37	T.
	(a)(c) Hebe.....	4. 17,5	23,3	15,4	22,3	18,9	17,1				126. 59. 18,97				102,81	98. 22. 36,85	T.
	(a)(c) H. C. 37238....	4. 47,3	51,2	45,5	52,1	47,1	47,1			+1½	146. 34. 48,17				323,51	118. 1. 46,75	T.
	(a)(d) H. C. 37531....	4. 47,0	50,2	44,4	51,8	46,1	44,2			+2	135. 9. 47,07				148,48	106. 33. 50,62	T.
	H. C. 37782.....	1. 38,8	41,1	36,9	43,9	39,0	36,0				140. 1. 39,55				195,23	111. 26. 29,85	T.
July 10	Zenith Point....	0. 24,3	25,7	21,4	26,3	21,3	22,9	+4,9	9,573		66. 25. 32,63						T.
	η Ophiuchi.....	3. 6,3	6,5	5,0	9,1	4,1	1,9				134. 8. 5,98	29,912	52,0	46,1	142,42	105. 32. 3,77	T.
	H. C. 31337....	0. 45,3	46,7	43,0	50,1	43,7	42,3				140. 15. 45,32				200,08	111. 40. 40,77	T.
	ξ Ophiuchi.....	1. 62,3	63,0	62,1	65,9	60,7	58,8				139. 32. 2,47				191,20	110. 56. 49,04	T.
	(e) N.L.....	1. 36,8	38,8	36,2	39,4	35,3	32,9			-2	139. 11. 39,47		52,1		187,28	110. 36. 22,12	T.
	N.L.....	...	...	...	...	...	...		9,936	-1	129. 11. 39,54					110. 36. 22,19	T.
	N.L.....	...	...	...	...	...	...		9,883		139. 11. 39,27					110. 36. 21,92	T.
	N.L.....	...	...	...	...	...	...		9,843	+1	139. 11. 38,62					110. 36. 21,27	T.
	N.L.....	...	...	...	...	...	...		9,804	+2	139. 11. 37,83					110. 35. 20,48	T.
	(f) H. C. 32119....	2. 60,3	59,9	60,6	61,9	58,9	55,0				141. 32. 59,92				217,76	112. 58. 13,05	T.
	Hebe.....	1. 17,5	17,9	16,3	18,7	14,0	12,4				127. 36. 16,35	29,946	50,0	44,7	106,86	98. 59. 38,58	T.
July 12	H. C. 31429....	3. 9,9	11,0	9,8	13,3	9,7	7,0				137. 23. 10,63	29,890	62,0	61,7	163,27	108. 47. 29,27	T.
	H. C. 31646....	4. 10,0	10,7	10,5	14,5	9,4	7,1				136. 44. 11,05				157,56	108. 8. 23,98	T.
	H. C. 31784....	1. 37,9	40,9	37,1	40,6	38,4	35,7				136. 16. 38,70				153,75	107. 40. 47,82	T.
	H. C. 31791....	...	...	...	...	...	...		8,904		136. 17. 1,54				153,79	107. 41. 10,70	T.
	H. C. 31954....	2. 29,3	31,2	28,9	31,1	29,5	26,9			+1	136. 42. 29,83				157,33	108. 6. 42,53	T.
	ο Sagittarii....	2. 15,1	14,6	12,1	16,9	13,0	10,5				140. 32. 14,07	29,872	59,0	58,0	198,41	111. 57. 7,85	T.
	π Sagittarii....	0. 27,5	29,0	24,7	28,3	27,0	24,5				139. 50. 26,90				189,85	111. 15. 12,12	T.
	(e) N.L.....	0. 17,8	20,0	14,5	20,1	16,6	15,1			-2	140. 45. 16,56				201,21	112. 10. 13,14	T.
	N.L.....	...	...	...	...	...	...		10,110	-1	140. 45. 14,75					112. 10. 11,33	T.
	N.L.....	...	...	...	...	...	...		10,103		140. 45. 15,25					112. 10. 11,83	T.
	N.L.....	...	...	...	...	...	...		10,214	+1	140. 45. 13,18					112. 10. 9,76	T.
	N.L.....	...	...	...	...	...	...		10,167	+2	140. 45. 14,28					112. 10. 10,86	T.
	(g) h ³ Sagittarii....	1. 32,4	34,9	30,0	33,7	31,6	29,6				143. 46. 32,28				249,54	115. 12. 17,19	T.
	c ³ Sagittarii....	3. 55,9	55,1	55,7	58,1	53,9	51,6				135. 3. 55,68				145,39	106. 27. 56,44	T.
July 16	(h) ⊙ S.L.....	1. 40,1	42,6	40,5	43,4	38,7	35,3	+4,1	9,134	+4½	97. 26. 59,11	29,728	59,4	60,6	34,11	68. 49. 8,15	T.
	α Ophiuchi R....	3. 47,8	47,0	46,1	50,9	44,3	42,2		9,429		206. 53. 58,80	29,780	54,4	53,1	47,57	77. 19. 29,84	T.
	α Ophiuchi.....	1. 54,2	56,1	52,4	55,9	52,0	50,0		9,429		105. 57. 5,58					77. 19. 28,08	T.
July 17	(a) ⊙ N.L.....	4. 32,0	36,8	31,7	37,0	31,3	29,4		7,793		97. 5. 18,97	29,788	60,0	64,5	33,43	68. 27. 27,33	T.
	⊙ S.L.....	0. 63,2	64,4	62,3	64,3	61,3	56,9		7,793		97. 36. 48,22				34,13	68. 58. 57,28	T.
July 18	⊙ S.L.....	1. 47,0	49,0	46,0	50,7	46,2	42,6		9,134		97. 47. 5,22	29,860	60,6	62,4	34,59	69. 9. 14,74	T.
	⊙ N.L.....	0. 13,8	15,0	11,7	14,7	11,6	8,0		9,134		97. 15. 30,55				33,88	68. 37. 39,36	T.
	Zenith Point....	0. 32,9	34,2	29,6	34,6	29,3	30,8		9,947		66. 25. 33,07						
	(a)(i) Hebe.....	4. 38,0	40,3	35,7	39,3	38,1	35,6				128. 44. 37,78	29,936	52,6	50,8	110,60	100. 8. 3,31	T.
	(d) H. C. 38503....	2. 7,1	7,0	6,1	10,0	6,2	3,7				137. 22. 6,97	29,942	53,6	50,7	167,10	108. 46. 29,00	T.
	(d) H. C. 38876....	3. 40,2	40,6	40,5	42,6	38,9	37,3			+3½	137. 18. 40,49				166,58	108. 43. 2,00	T.
	H. C. 39116....	4. 15,1	14,7	15,6	17,7	13,4	11,1			+4½	137. 24. 14,14				167,43	108. 48. 36,50	T.
	B.A.C. 7069....	3. 55,0	54,3	54,5	57,3	52,3	49,9				141. 13. 54,42				211,31	112. 39. 0,66	T.
	B.A.C. 7070....	...	...	...	...	...	...		8,868		141. 14. 18,01				211,39	112. 39. 24,33	T.
July 21	⊙ N.L.....	2. 55,2	52,5	52,1	56,0	51,4	47,9	+5,0	8,757		97. 48. 18,91	29,944	63,5	66,0	34,47	69. 10. 28,43	T.
	(k) ⊙ S.L.....	4. 23,9	21,8	22,9	24,3	21,0	17,4		8,757	+4	98. 19. 48,85				35,18	69. 41. 59,08	T.
	Zenith Point....	0. 32,2	34,2	23,5	34,0	29,9	29,5		9,929		66. 25. 32,95						
	Hebe.....	3. 11,4	13,2	13,3	15,9	12,7	8,8		11,642		129. 12. 38,86	30,008	57,1	53,7	112,41	100. 36. 6,32	T.
	B.A.C. 7040....	2. 22,3	25,0	23,5	26,3	24,2	20,1				143. 2. 23,97	30,006	55,1	52,4	239,73	114. 27. 58,75	T.
	(a)(k) τ ³ Capricorni..	4. 14,9	18,7	12,9	16,9	17,0	12,9				134. 4. 15,67				140,58	105. 28. 11,30	T.
	(l) Bessel xx. 796....	...	...	...	...	...	...		6,275		134. 5. 33,30				140,73	105. 29. 29,08	T.
	Bessel xx. 1024....	2. 51,9	54,0	52,1	55,8	53,0	47,5				134. 2. 52,87				140,42	105. 26. 48,34	T.
	Bessel xx. 1051....	...	...	...	...	...	...		10,802		134. 2. 36,16				140,39	105. 26. 31,60	T.

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Negative correction for Runs. (b) Not good: the sky thick. (c) Very faint from cloud. (d) Cloudy. (e) Excessively unsteady.
 (f) Very faint. (g) Hebe was lost by the Lamp going out. (h) Doubtful observation: delayed by cloud. (i) Hazy. (k) Interruption by clouds passing.
 (l) 'Following the preceding about 18°.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.			Observer.						
		A	B	C	D	E	F						Int.	Ext.		"	"	"							
		"	"	"	"	"	"						"	"						"	"	"	"		
July 22	☉ N.L.....	4.59,5	63,0	59,7	61,8	59,5	54,6	+5,0			97.59.59,68	30,000	60,0	68,7	34,61	69.22.9,34		B.							
July 25	☉ N.L.....	3.15,5	16,2	16,0	18,7	12,6	11,3	+5,1	13,919		98.36.53,92	29,450	61,8	59,5	35,44	69.59.4,31		B.							
	☉ S.L.....	4.46,5	46,0	48,0	48,4	44,6	40,5		13,919		99.8.24,79														
July 26	Zenith Point....	1.22,7	21,3	17,8	22,3	17,7	17,9		12,261		66.25.33,05							B.							
July 29	(a) ☉ S.L.....	3.16,3	16,4	15,5	18,7	16,0	10,7		12,873		100.2.16,27	29,750	63,2	70,2	37,01	71.24.28,23		B.							
	☉ N.L.....	1.40,4	41,2	38,4	41,4	38,6	35,1		12,873	+4	99.30.39,73														
Aug. 2	(b) ☉ N.L.....	3.17,9	17,8	16,3	21,9	16,5	11,4	+4,4	6,617		100.29.27,96	30,010	63,6	67,4	38,18	71.51.41,39		B.							
	☉ S.L.....	4.50,3	49,4	49,6	53,0	49,7	44,0		6,617		101.1.0,54														
	(c) ☉ N.L.....	0.10,8	16,5	6,7	15,8	12,2	6,0		8,878	-2	122.5.42,10								29,996	66,5	72,5	81,65	93.28.39,00		B.
	☉ N.L.....	...	...	...	...	...	...		8,692	-1	122.5.42,32								
	☉ N.L.....	...	...	...	...	...	...		8,565		122.5.41,28								
	☉ N.L.....	...	...	...	...	...	...		8,365	+1	122.5.41,75								
	☉ N.L.....	...	...	...	...	...	...		8,224	+2	122.5.40,97								
	Zenith Point....	0.20,5	20,2	15,2	20,5	16,5	16,0		10,302		66.25.32,75														
Aug. 4	☉ S.L.....	3.9,9	9,8	8,6	12,3	6,6	4,6		12,706		101.32.12,70	30,118	69,7	72,6	39,44	72.54.27,39		T.							
	☉ N.L.....	1.36,4	35,2	34,2	36,9	33,3	32,4		12,706		101.0.38,57														
Aug. 5	☉ N.L.....	2.61,7	60,7	59,0	63,6	57,2	55,0			-2	135.43.4,58	30,260	62,9	59,5	151,70	107.7.11,53		T.							
	☉ N.L.....	...	...	...	...	...	...	9,917	-1	135.43.4,06									
	☉ N.L.....	...	...	...	...	...	...	9,852		135.43.3,05									
	☉ N.L.....	...	...	...	...	...	...	9,737	+1	135.43.3,01									
	☉ N.L.....	...	...	...	...	...	...	9,657	+2	135.43.2,15									
	☉ Ophiuchi.....	2.57,7	56,6	55,3	58,5	54,5	51,1				134.52.56,03								58,0	145,91		106.16.57,19		T.	
Aug. 6	(d) ☉ N.L.....	2.38,6	37,9	38,0	40,3	34,1	32,2		9,069		101.32.56,63	30,227	62,9	64,3	40,26	72.55.12,14		T.							
Aug. 7	☉ S.L.....	1.42,8	43,3	40,8	44,4	39,8	37,5	+5,2	11,801	+1	102.21.4,04	30,100	65,0	64,5	41,27	73.43.19,29		T.							
	☉ N.L.....	0.5,8	7,6	3,4	6,7	2,2	0,0		11,801	+1	101.49.26,61														
	(e) ☉ Ophiuchi.....	4.62,4	66,8	61,8	66,7	61,9	60,4				143.25.3,33		30,084	62,5	60,0	243,44	114.50.40,75		T.						
	☉ Ophiuchi.....	1.31,9	34,9	31,0	34,7	31,7	29,5				142.36.32,55														
	(f) ☉ N.L.....	0.36,6	38,0	33,6	39,4	34,4	32,1			-2	140.15.37,25		30,074	60,2	58,2	196,15	111.40.27,38		T.						
	☉ N.L.....	...	...	...	...	...	...		10,032	-1	140.15.35,91								
	☉ N.L.....	...	...	...	...	...	...		9,988		140.15.36,03								
	☉ N.L.....	...	...	...	...	...	...		9,942	+1	140.15.36,09								
	☉ N.L.....	...	...	...	...	...	...		9,892	+2	140.15.36,10								
	μ ¹ Sagittarii R....	3.59,6	59,1	60,6	63,9	57,5	54,2		6,062		173.10.21,90		30,070	59,0	56,4	189,16	111.5.29,28		T.						
	μ ¹ Sagittarii.....	4.20,0	18,1	20,4	22,4	16,3	14,6		6,062		139.40.41,45														
	λ Sagittarii.....	3.56,9	57,0	56,3	59,1	53,9	50,5				144.3.56,30														
	(e) H. C. 36591.....	4.58,7	62,2	56,2	63,9	58,0	55,4				140.24.59,07														
	(e) B.A.C. 6683....	4.32,9	36,9	30,6	36,9	32,3	30,1			+2	140.24.32,97														
	(e) H. C. 37071.....	3.32,9	37,6	29,5	37,1	32,9	30,3				140.48.33,13														
	H. C. 37096.....	...	...	...	...	...	...		0,917		140.51.42,43								
	α Aquilæ R.....	1.32,5	33,0	28,2	36,0	28,9	28,5		7,079		202.42.32,33		56,0		55,32	112.16.41,04		T.							
	α Aquilæ.....	2.31,9	33,1	30,2	36,0	28,0	26,6		7,079	+2	110.8.32,37														
	(g) ξ ¹ Capricorni R..	3.18,1	19,0	17,8	23,2	15,3	15,9		5,009		181.25.2,80														
																					123,57		102.49.42,79		T.
Aug. 8	(h) ☉ N.L.....	0.21,8	24,2	17,5	23,1	19,6	16,9		7,283		102.6.17,19	30,026	72,0	74,0	40,04	73.28.31,21		T.							
Aug. 11	(e) ☉ S.L.....	4.38,0	41,0	33,5	41,1	34,3	32,4		9,240		103.29.52,49	30,096	63,4	66,7	42,84	74.52.9,31		T.							
	☉ N.L.....	2.60,1	60,2	58,1	62,3	55,3	52,5		9,240		102.58.14,44														
	Zenith Point....	0.35,1	33,8	29,8	36,0	29,2	31,0		9,930		66.25.34,02														
	29 Capricorni....	3.6,1	3,1	2,6	6,1	1,7	0,5				134.23.3,88		30,082	58,4	56,6	141,89	105.46.59,75		T.						
	☉ Capricorni.....	3.34,6	32,5	33,0	35,7	29,9	30,0				136.3.33,23														
																							154,54		107.27.41,75		T.

ONE REVOLUTION of the MICROMETER = 20'',841. ONE INTERVAL from the middle wire for an Equatorial Star = 16'',6.
 ASSUMED Co-LATITUDE = 37°.47'.8'',00.

(a) Cloudy: N.L. observed better than S.L. (b) Unsteadiness and bad definition. (c) Faint but steady. (d) Much clouded: bisected doubtfully without the dark glass. (e) Negative correction for Runs. (f) Rather rugged. (g) Doubtful observation, the star being very faint. (h) Immediately after the bisection the Sun was hid by cloud.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refract.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						"	"		"	"	"	
Aug. 12	☉ N.L.....	0. 8,1	11,0	4,5	9,1	5,7	2,8	+5,2	7,157		103. 16. 6,13	30,040	67,4	75,0	41,72	74. 38. 21,83	T.		
	☉ S.L.....	1. 43,8	43,7	40,3	43,7	40,7	36,7		7,157		103. 47. 41,03				42,52	75. 9. 57,53	T.		
Aug. 14	Neptune.....	1. 44,7	44,0	40,9	43,9	39,9	37,6			+3	127. 51. 41,89	29,796	60,7	57,7	104,63	99. 15. 0,50	T.		
Aug. 18	B.A.C. 6217....	2. 45,1	46,2	43,1	48,3	41,4	40,5	+2,9		+3	143. 32. 43,73	30,264	57,0	52,8	251,03	114. 58. 29,45	T.		
	Neptune.....	3. 64,4	62,2	64,9	66,2	57,9	58,1			+4	127. 54. 2,26	30,288	53,0	47,0	108,88	99. 17. 25,83	T.		
Aug. 19	(a) ☉ S.L.....	3. 8,0	8,9	7,9	11,0	3,3	1,1		7,432		105. 59. 0,52	30,338	65,0	63,7	47,49	77. 21. 22,70	T.		
	☉ N.L.....	1. 28,2	28,9	26,1	31,7	24,0	22,1		7,432		105. 27. 20,49				46,61	76. 49. 41,79	T.		
	Eunomia.....	1. 51,7	54,9	51,9	56,1	51,8	49,7				143. 6. 52,87	30,302	60,6	57,7	240,78	114. 32. 28,34	T.		
	B.A.C. 6217....	2. 47,1	49,2	47,3	51,6	45,3	43,1				143. 32. 47,53				248,82	114. 58. 31,04	T.		
	Neptune.....	4. 42,2	41,6	43,4	45,9	38,1	37,4			+4	127. 54. 41,46	30,287	55,7	53,8	107,42	99. 18. 3,57	T.		
Aug. 20	☉ N.L.....	1. 48,8	52,2	48,0	53,1	47,8	43,4		9,592		105. 46. 57,55	30,230	70,0	72,3	46,19	77. 9. 18,43	T.		
	☉ S.L.....	3. 30,4	33,0	30,1	34,5	29,8	26,0		9,592		106. 18. 39,47				47,07	77. 41. 1,23	T.		
	(b) Eunomia.....	2. 34,4	37,0	32,6	39,0	34,4	31,0			+4	143. 2. 34,11	30,160	66,6	65,8	234,46	114. 28. 3,26	T.		
	(c) ☉ N.L.....	0. 46,9	48,3	44,2	50,0	44,1	43,0		9,898	+1	100. 10. 50,21	30,086	60,9	58,5	38,51	71. 33. 3,41	T.		
Aug. 21	(d) ☉ S.L.....	3. 28,2	38,4	22,8	38,7	23,5	25,9		10,104		106. 38. 27,75	30,042	74,6	71,1	47,44	78. 0. 49,88	T.		
	☉ N.L.....	1. 50,0	57,6	42,7	57,1	45,6	45,6		10,104		106. 6. 47,76				46,56	77. 29. 9,01	T.		
	Eunomia.....	3. 36,7	38,4	36,1	40,2	37,0	33,9				142. 58. 37,40	29,998	67,0	65,9	232,02	114. 24. 4,11	T.		
	B.A.C. 6217....	2. 53,4	55,7	52,9	57,3	52,3	49,7			+2½	143. 32. 53,40				242,25	114. 58. 30,34	T.		
	Neptune.....	0. 60,9	60,1	57,0	61,2	55,8	54,8				127. 55. 58,40	29,984	62,4	60,7	104,97	99. 19. 18,06	T.		
Aug. 22	☉ N.L.....	1. 24,5	25,9	20,7	25,3	20,9	19,1		8,799		106. 26. 47,90	29,949	72,0	76,7	46,46	77. 49. 9,05	T.		
	☉ S.L.....	2. 65,7	66,6	63,8	67,5	61,9	59,1		8,799		106. 58. 29,43				47,33	78. 20. 51,45	T.		
	(e) Eunomia.....	4. 35,1	39,9	31,6	38,6	35,0	34,2				142. 54. 35,70	29,900	67,9	67,7	229,30	114. 19. 59,69	T.		
	B.A.C. 6217....	2. 54,9	57,1	53,3	59,0	54,0	51,1			+4	143. 32. 54,07				240,60	114. 58. 29,36	T.		
	Zenith Point....	0. 14,8	14,0	8,6	15,3	7,9	10,0		8,967		66. 25. 33,31						T.		
Aug. 23	B.A.C. 6111....	3. 29,0	30,2	28,2	31,7	27,4	23,9			+3	142. 58. 28,12	29,834	59,5	57,4	234,76	114. 23. 57,57	T.		
	Neptune.....	2. 15,1	12,6	11,6	14,4	8,1	6,4				127. 57. 11,58	29,832	56,0	53,4	106,08	99. 20. 32,35	T.		
Aug. 25	(f) ☉ S.L.....	0. 16,1	17,6	13,9	19,3	13,6	12,2		11,803		107. 59. 37,90	30,060	61,7	64,4	50,44	79. 22. 3,03	B.		
	☉ N.L.....	3. 35,6	35,4	35,3	37,6	31,5	30,4		11,803		107. 27. 57,07				49,52	78. 50. 21,28	B.		
Aug. 26	Neptune.....	3. 58,4	56,9	57,3	59,7	52,4	52,3		9,658		127. 59. 3,80	29,810	60,5	57,3	105,30	99. 22. 23,79	B.		
Aug. 28	(g) B.A.C. 6097....	0. 58,2	60,0	55,7	60,0	55,6	54,7				142. 50. 57,47	29,798	57,0	53,2	234,35	114. 16. 26,51	B.		
	(h) B.A.C. 6111....	3. 29,0	30,0	29,4	31,6	27,4	26,7			+4	142. 58. 28,26				236,53	114. 23. 59,48	B.		
	Neptune.....	0. 18,8	20,6	15,6	22,1	15,3	14,5		9,987		128. 0. 18,10	29,780	55,4	49,3	107,02	99. 23. 39,81	B.		
Aug. 29	(i) ☉ N.L.....	1. 52,5	53,5	49,6	53,4	46,4	46,4		9,985		108. 51. 50,78	29,560	55,5	53,0	52,33	80. 14. 17,80	B.		
Aug. 30	Neptune.....	1. 31,6	33,2	27,7	34,0	27,0	37,0				128. 1. 31,90	30,154	51,0	45,7	109,26	99. 24. 55,85	B.		
Sept. 2	☉ S.L.....	0. 26,9	30,9	22,9	28,5	23,3	23,0	+5,5	11,135	+1	110. 50. 2,11	30,048	62,7	69,7	55,10	82. 12. 31,34	B.		
	☉ N.L.....	3. 38,9	40,9	35,8	41,1	34,1	33,4		11,135	+1	110. 18. 14,14				54,09	81. 40. 42,36	B.		
Sept. 3	α Ophiuchi R....	3. 6,8	8,2	3,4	10,1	3,3	3,2		7,298	-2	206. 54. 2,58	29,998	64,4	62,3	47,04	77. 19. 26,33	B.		
	α Ophiuchi.....	1. 6,6	9,0	2,4	9,3	2,5	2,8		7,298		105. 57. 1,94					77. 19. 23,11	B.		
	(k) ☉ N.L.....	2. 61,9	63,2	59,8	64,6	59,4	57,3		9,716	-2	139. 58. 9,49				190,51	111. 22. 54,13	B.		
	☉ N.L.....	...	...	...	...	...	...		9,697	-1	139. 58. 8,96					111. 22. 53,60	B.
	☉ N.L.....	...	...	...	...	...	...		9,640		139. 58. 9,08					111. 22. 53,72	B.
	☉ N.L.....	...	...	...	...	...	...		9,625	+1	139. 58. 8,23					111. 22. 52,87	B.
	☉ N.L.....	...	...	...	...	...	...		9,580	+2	139. 58. 7,88					111. 22. 52,52	B.
	μ ¹ Sagittarii....	0. 46,0	47,4	40,3	47,3	42,2	40,5				139. 40. 44,08				187,11	111. 5. 25,32	B.		
	λ Sagittarii.....	3. 59,2	59,8	57,8	62,4	55,6	53,9				144. 3. 58,85				254,13	115. 29. 47,11	B.		

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Very unsteady. (b) Uncertain: breath on the eye-glass. (c) This observation was considered of no value. (d) The Sun had been shining on the instrument. (e) Extremely faint. Negative correction for Runs. (f) Tremor. (g) 'Good.' (h) Faint. (i) Clouds had suddenly cleared off. (k) Ragged and waving. This Limb appeared more full than the other.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac-tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"					Inch.	"	"			
Sept. 3	(a) Neptune.....	3. 63,1	62,5	61,4	65,9	57,9	56,5	+5,5			128. 4. 1,95	30,058	59,5	54,2	107,21	99. 27. 23,29	B.
Sept. 5	(b) ☉ N.L.....	4. 11,6	11,5	10,0	15,4	5,2	4,4		9,298	+4	111. 24. 24,34	30,150	59,6	60,0	57,51	82. 46. 55,98	B.
	H. C. 33513.....	0. 35,0	38,2	29,6	35,9	31,0	31,3		9,298		137. 10. 48,25	30,210	57,8	54,8	165,45	108. 35. 7,83	B.
Sept. 8	☽ S.L.....	0. 19,8	21,5	15,0	20,6	17,2	15,8		9,114	-2	134. 25. 31,81	30,480		50,3	145,81	105. 49. 31,75	B.
	☽ S.L.....	...	...	...	...	...	...		9,264	-1	134. 25. 31,24					105. 49. 31,18	B.
	☽ S.L.....	...	...	...	...	...	...		9,475		134. 25. 29,31					105. 49. 29,25	B.
	☽ S.L.....	...	...	...	...	...	...		9,622	+1	134. 25. 28,64					105. 49. 28,58	B.
	☽ S.L.....	...	...	...	...	...	...		9,731	+2	134. 25. 28,68					105. 49. 28,62	B.
	Neptune.....	1. 57,0	59,0	56,0	61,7	55,0	52,8		9,731		1. 8. 7. 2,89		50,0	109,88		99. 30. 26,90	B.
	♄ Aquarii.....	2. 24,4	26,2	24,0	29,1	22,0	20,5		9,731		132. 58. 30,59				136,13	104. 22. 20,85	B.
	♅ Aquarii.....	2. 13,8	15,2	12,5	15,9	10,8	10,7		9,731		135. 12. 19,16				151,86	106. 36. 25,15	B.
Sept. 9	Neptune.....	2. 40,0	41,1	39,0	44,0	37,2	36,2				128. 7. 40,08	30,458	53,0	44,8	111,02	99. 31. 5,23	B.
	♄ Aquarii.....	3. 28,3	31,0	29,1	33,7	26,8	25,4				132. 58. 29,70				137,50	104. 22. 21,33	B.
	♄ Aquarii.....	2. 17,8	19,5	16,4	20,0	15,4	14,0				135. 12. 17,60				153,39	106. 36. 25,12	B.
	(c) ☽ S.L.....	3. 17,8	19,4	17,4	20,3	14,8	14,3			-2	130. 43. 12,28				124,04	102. 6. 50,45	B.
	☽ S.L.....	...	...	...	...	...	...		10,149	-1	130. 43. 12,03					102. 6. 50,20	B.
	☽ S.L.....	...	...	...	...	...	...		10,294		130. 43. 11,80					102. 6. 49,97	B.
	☽ S.L.....	...	...	...	...	...	...		10,374	+1	130. 43. 12,87					102. 6. 51,04	B.
	☽ S.L.....	...	...	...	...	...	...		10,562	+2	130. 43. 11,63					102. 6. 49,80	B.
Sept. 10	(d) ☉ N.L.....	1. 22,9	24,9	19,2	23,4	18,9	19,0		8,778		113. 16. 47,10	30,490	56,1	61,7	61,86	84. 39. 23,09	B.
	☉ S.L.....	3. 11,4	13,0	10,1	14,0	6,8	7,8		8,778	+2	113. 48. 36,09				63,01	85. 11. 13,23	B.
	Zenith Point....	0. 27,4	27,8	23,2	29,1	22,1	23,5		9,603		66. 25. 33,87						B.
	Bessel xxii. 91..	2. 7,9	9,7	6,5	9,6	5,0	5,5				133. 12. 7,75	30,452	53,5	47,0	138,34	104. 36. 0,22	B.
	Bessel xxii. 183.	1. 51,1	52,3	49,7	52,6	48,4	48,2				133. 31. 50,72				140,53	104. 55. 45,38	B.
	(e) H. C. 43611....	2. 45,7	46,1	43,5	46,0	41,2	41,5				128. 57. 44,50				114,44	100. 21. 13,07	B.
	Bessel xxii. 415.	2. 46,0	46,8	44,8	46,7	41,3	41,5				131. 37. 45,02				128,60	103. 1. 27,75	B.
	Bessel xxii. 588.	3. 18,8	18,6	17,6	20,3	13,6	14,0				130. 58. 17,75				124,85	102. 21. 56,73	B.
	Neptune.....	3. 18,7	18,2	17,4	20,8	13,6	14,1				128. 8. 17,75	30,450	53,4	46,3	110,70	99. 31. 42,56	B.
	(f) ☽ Aquarii R....	2. 19,6	21,3	18,3	23,1	16,2	18,3		6,771	+2½	187. 23. 27,29				99,37	96. 50. 53,95	B.
	☽ Aquarii.....	1. 26,1	28,5	24,5	29,3	22,3	24,0		6,771	+4	125. 27. 33,05					96. 50. 46,55	B.
	☽ Aquarii.....	0. 34,5	36,0	31,9	35,9	31,4	32,0		6,771		129. 1. 41,02				114,91	100. 25. 10,06	B.
	(g) ☽ S.L.....	3. 49,8	51,6	51,5	53,7	47,6	47,0			-2	126. 33. 44,87	30,453	52,8	45,6	103,98	97. 57. 2,98	B.
	☽ S.L.....	...	...	...	...	...	...		10,095	-1	126. 33. 45,92					97. 57. 4,03	B.
	☽ S.L.....	...	...	...	...	...	...		10,278		126. 33. 45,11					97. 57. 3,22	B.
	☽ S.L.....	...	...	...	...	...	...		10,455	+1	126. 33. 44,38					97. 57. 2,49	B.
	☽ S.L.....	...	...	...	...	...	...		10,605	+2	126. 33. 44,18					97. 57. 2,29	B.
Sept. 11	(h) ☉ S.L.....	1. 16,1	21,0	13,8	21,3	12,4	13,1		9,726		114. 11. 22,23	30,340	56,2	61,8	63,52	85. 33. 59,88	B.
	(i) ☉ N.L.....	4. 27,5	32,3	23,5	30,0	24,4	25,5		9,726		113. 39. 32,83				62,36	85. 2. 9,32	B.
	Bessel xx. 612..	3. 40,0	40,9	39,3	43,3	38,0	36,5		9,726		132. 38. 46,04	30,392	57,4	53,7	132,65	104. 2. 32,82	B.
	(k) Bessel xx. 823..	1. 40,2	41,4	37,2	40,8	38,5	37,4				134. 31. 39,55				145,24	105. 55. 38,92	B.
	(l) * R. 20 ^h . 37 ^m . 43 ^s .	1. 54,4	56,0	51,8	56,9	51,9	50,5		11,645	+4½	133. 51. 18,82				140,51	105. 15. 13,46	B.
	Bessel xx. 965..	...	...	...	...	...	...			+2½	133. 51. 53,68				140,59	105. 15. 48,40	B.
	Neptune.....	3. 51,0	52,0	51,1	54,0	48,8	47,0				128. 8. 51,37	30,385	54,0	48,4	110,03	99. 32. 15,53	B.
	27 Piscium.....	4. 35,5	34,5	34,9	37,5	30,3	30,9				122. 59. 34,78	30,376	52,4	46,8	90,05	94. 22. 38,96	B.
	33 Piscium.....	3. 56,6	56,9	56,4	60,2	52,8	53,5				125. 8. 56,78				97,82	96. 32. 8,73	B.
	(m) Iris.....	4. 49,3	48,0	48,6	51,4	43,5	45,2			+4	106. 14. 48,95				49,66	77. 37. 12,74	B.
	* R. 0 ^h . 22 ^m . 13 ^s .	4. 21,0	19,2	19,5	23,1	15,1	16,1		13,024		110. 38. 16,76				57,93	82. 0. 48,82	B.
	(c) ☽ N.L.....	2. 30,6	30,6	28,0	31,9	26,2	27,0		9,731	-2	121. 37. 28,89				85,56	93. 0. 28,58	B.
	☽ N.L.....	...	...	...	...	...	...		9,924	-1	121. 37. 27,98					93. 0. 27,67	B.
	☽ N.L.....	...	...	...	...	...	...		10,029		121. 37. 28,90					93. 0. 28,59	B.
	☽ N.L.....	...	...	...	...	...	...		10,199	+1	121. 37. 28,43					93. 0. 28,12	B.
	☽ N.L.....	...	...	...	...	...	...		10,349	+2	121. 37. 28,39					93. 0. 28,08	B.
Sept. 12	☉ N.L.....	3. 13,2	13,5	11,4	16,6	8,1	7,8		12,369		114. 2. 22,98	30,330	58,0	66,4	62,59	85. 24. 59,70	B.
	☉ S.L.....	4. 61,4	65,5	59,0	64,1	58,0	55,7		12,369		114. 34. 11,25				63,76	85. 56. 49,14	B.

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) The circle reading has been diminished 5'. (b) Dense cloud. (c) Steady. (d) Clouded but steady; without the dark glass. (e) Faint.
 (f) The mercury unsteady, but the star pretty well defined when bisected. (g) Unsteady. (h) 'So extremely unsteady and ill-defined that the bisection was uncertain to several seconds.' (i) Negative correction for Runs. (k) 'A brighter north-preceding by 10'. (l) 'Precedes the next about 10'.
 The R.A. is inferred from this note. (m) Bright and satisfactorily observed.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.			Observer.				
		A	B	C	D	E	F						Int.	Ext.		"	0	0		"	0	"	"
Sept.12	4 Cephei R.....	0. 10,0	11,8	6,4	11,3	6,0	5,9	+5,5	10,985	+2	260. 19. 46,71	30,295	56,5	52,0	14,56	23. 52. 40,60			B.				
	4 Cephei.	1. 33,8	35,0	31,1	33,2	30,9	27,0		10,985	+4 $\frac{3}{4}$	52. 31. 19,25					23. 52. 38,82			B.				
	H. C. 40616.....	1. 52,8	53,1	51,6	53,3	50,8	47,4				142. 1. 51,83				225,21	113. 27. 11,17			B.				
	B.A.C. 7325.....	1. 24,5	27,6	23,1	27,4	23,5	20,0				139. 21. 24,60				189,22	110. 46. 7,95			B.				
	(a) Bessel xx. 1541..	1. 51,6	53,0	49,2	52,7	49,1	44,3			+4	133. 1. 49,71				135,11	104. 25. 38,95			B.				
	(b) * R. 21 ^h . 8 ^m . 52 ^s .	1. 37,8	39,4	35,3	38,0	35,5	32,0				130. 36. 36,63				120,98	102. 0. 11,74			B.				
	(c) Bessel xxi. 307..	0. 55,0	57,1	51,6	55,4	52,1	47,4				131. 35. 53,25				126,44	102. 59. 33,82			B.				
	(d) Bessel xxi. 418. .	4. 47,4	50,5	43,7	47,6	45,5	41,4				131. 19. 45,98				124,92	102. 43. 25,03			B.				
	B.A.C. 7473.....	3. 32,2	33,4	32,5	33,4	30,6	28,6				138. 28. 32,43				179,56	109. 53. 6,12			B.				
	ε Capricorni.....	2. 59,1	61,0	58,9	60,7	56,5	55,0				138. 42. 59,08				182,11	110. 7. 35,32			B.				
	Bessel xxi. 1383..	4. 23,5	23,0	22,5	24,6	19,3	18,7				132. 54. 22,73	30,292	54,5	50,0	134,86	104. 18. 11,72			B.				
	(e) Bessel xxii. 82. .	2. 10,0	11,2	8,3	11,3	6,2	5,8		5,228	+2	133. 13. 48,50				136,95	104. 37. 39,58			B.				
	Bessel xxii. 91. .	...	...	...	...	...	...				133. 12. 9,20				136,77	104. 36. 0,10			B.
	Bessel xxii. 183. .	0. 11,5	13,3	8,7	12,5	8,9	8,8		5,228	+1	133. 31. 50,06				138,93	104. 55. 43,12			B.				
	Bessel xxii. 184. .	...	...	...	...	...	...		11,103	+2 $\frac{1}{2}$	133. 29. 47,42				138,70	104. 53. 40,25			B.
	(d) Bessel xxii. 357. .	4. 33,8	36,9	31,0	34,1	31,7	31,3				130. 44. 33,05				122,19	102. 8. 9,37			B.				
	Bessel xxii. 415. .	2. 45,0	45,0	43,5	44,2	41,4	39,1			+1	131. 37. 43,49				127,13	103. 1. 24,75			B.				
	Bessel xxii. 420. .	...	...	...	...	...	...		7,720	+1	131. 38. 31,01				127,20	103. 2. 12,34			B.
	(d) Bessel xxii. 548. .	4. 54,9	57,4	52,6	55,2	52,0	51,4		7,720		124. 15. 41,42				93,64	95. 38. 49,19			B.				
	Bessel xxii. 588. .	2. 28,4	29,4	27,5	29,7	24,9	24,8		7,720		130. 58. 15,42		49,5		123,55	102. 21. 53,10			B.				
	Neptune.....	4. 29,8	29,1	29,9	30,8	25,3	25,5				128. 9. 29,22				109,49	99. 32. 52,84			B.				
	(f) Iris.....	2. 29,0	27,9	26,0	28,6	23,4	24,4				106. 17. 27,00	30,282	51,8	45,7	49,70	77. 39. 50,83			B.				
	(g) Hygeia.....	2. 43,8	42,1	41,0	43,4	36,7	38,9				110. 42. 41,47				58,03	82. 5. 13,63			B.				
	* R. 0 ^h . 22 ^m . 13 ^s.	...	...	...	...	...	...		22,682		110. 38. 17,16				57,88	82. 0. 49,17			B.
	20 Ceti.....	3. 62,4	60,2	61,5	63,6	56,5	56,9				120. 34. 0,92				82,23	91. 56. 57,28			B.				
	e Piscium.....	0. 29,2	30,6	26,5	30,9	25,0	27,5				113. 45. 28,20				64,53	85. 8. 6,86			B.				
	(h) » N.L.....	3. 29,6	29,8	30,0	31,5	25,0	25,5			-2	117. 3. 22,99	30,280	51,0	44,8	72,60	88. 26. 9,72			B.				
	» N.L.....	...	...	...	...	...	...		9,983	-1	117. 3. 26,44					88. 26. 13,17			B.
» N.L.....	...	...	...	...	...	...		10,265		117. 3. 23,68					88. 26. 10,41			B.	
» N.L.....	...	...	...	...	...	...		10,281	+1	117. 3. 26,45					88. 26. 13,18			B.	
» N.L.....	...	...	...	...	...	...		10,295	+2	117. 3. 29,30					88. 26. 16,03			B.	
Sept.13	(i) ☉ S.L.....	2. 16,1	17,1	13,9	18,0	10,9	11,4		10,329		114. 57. 8,12	30,310	57,2	62,8	65,05	86. 19. 47,77			B.				
	☉ N.L.....	0. 26,0	28,7	23,3	27,8	21,5	21,4		10,329		114. 25. 18,01				63,85	85. 47. 56,46			B.				
	23 Sagittarii.....	0. 17,3	20,0	14,4	20,0	17,6	15,3				141. 55. 17,48	30,340	59,0	56,3	221,84	113. 20. 33,92			B.				
	B.A.C. 6343.....	2. 8,9	11,0	8,0	12,0	9,0	6,1				142. 12. 9,57				226,26	113. 37. 30,43			B.				
	4 Cephei R.....	0. 31,5	31,5	26,5	33,1	28,0	29,4		11,984	+ $\frac{1}{4}$	260. 19. 48,73	30,344	56,5	50,5	14,63	23. 52. 38,04			B.				
	4 Cephei.....	1. 60,5	59,9	58,4	60,1	58,0	56,3		11,984	+1 $\frac{3}{4}$	52. 31. 18,92					23. 52. 38,89			B.				
	H. C. 40616.....	1. 51,2	52,0	50,2	52,3	50,3	47,7				142. 1. 50,95				226,27	113. 27. 11,82			B.				
	B.A.C. 7325.....	1. 24,1	27,0	22,6	27,2	24,0	21,5				139. 21. 24,65				190,10	110. 46. 9,35			B.				
	(k) Bessel xx. 1541..	1. 51,9	53,5	49,4	53,4	49,8	48,0			+3	133. 1. 50,98				135,74	104. 25. 41,32			B.				
	* R. 21 ^h . 8 ^m . 52 ^s .	1. 35,5	37,4	32,6	37,0	34,3	32,2				130. 36. 35,12				121,55	102. 0. 11,27			B.				
	(l) Bessel xxi. 295. .	2. 51,0	52,6	50,3	52,9	49,0	46,9				131. 32. 50,97				126,74	102. 56. 32,31			B.				
	(l) Bessel xxi. 296. .	...	...	...	...	...	...		7,938		131. 33. 33,94				126,81	102. 57. 15,35			B.
	(m) Bessel xxi. 307..	...	...	...	...	...	...		1,190	+3	131. 35. 54,27				127,04	102. 59. 35,91			B.
	(d) Bessel xxi. 418. .	4. 47,5	50,4	46,9	48,2	46,4	44,6				131. 19. 47,30				125,51	102. 43. 27,41			B.				
	(n) Bessel xxi. 423. .	...	...	...	...	...	...		20,041	+3	131. 16. 17,73				125,18	102. 39. 57,51			B.
	(o) B.A.C. 7473.....	3. 31,8	33,3	30,6	34,1	30,0	28,4				138. 28. 32,02				180,41	109. 53. 7,03			B.				
	ε Capricorni.....	2. 58,3	60,6	57,7	61,5	57,5	55,6				138. 42. 59,07				182,97	110. 7. 36,64			B.				
	(p) * R. 21 ^h . 28 ^m . 45 ^s.	...	...	...	...	...	...		12,249		138. 42. 12,20				182,83	110. 6. 49,62			B.
	Neptune.....	0. 5,5	8,2	4,2	7,3	3,5	1,9				128. 10. 5,12	30,340	53,5	46,3	110,44	99. 33. 30,16			B.				
(q) Iris.....	0. 24,3	24,7	20,9	24,0	20,0	20,5				106. 20. 22,48	30,326	52,0	45,5	49,60	77. 42. 49,98			B.					
Hygeia.....	1. 8,5	11,1	6,5	10,4	5,3	5,3				110. 46. 8,05				58,28	82. 8. 40,93			B.					
Sept.15	(b) B.A.C. 6222.....	2. 49,3	51,0	49,6	52,9	48,6	46,8		7,268		141. 33. 47,16	30,548	58,8	56,1	218,00	112. 58. 59,76			B.				
	23 Sagittarii.....	0. 13,4	18,0	13,5	18,6	15,4	14,7				141. 55. 15,65				223,44	113. 20. 33,61			B.				
	B.A.C. 6343.....	2. 4,7	8,7	6,0	10,4	5,9	4,4				142. 12. 7,07				227,89	113. 37. 29,56			B.				
	Neptune.....	1. 14,5	18,3	14,6	17,6	13,8	12,3				128. 11. 15,42	30,590	53,4	47,6	111,14	99. 34. 41,16			B.				
	(r) Iris.....	1. 61,6	62,4	60,6	63,7	57,8	58,0				106. 27. 1,05	30,589	53,3	48,3	50,22	77. 49. 25,87			B.				

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) 'One of equal Mag. north-following.' (b) Very faint. (c) 'A coarse double-star precedes.' (d) Negative correction for Runs. (e) 'Precedes the next about an interval.' (f) Bright. (g) Very faint; Mag. 11. (h) Extremely bad definition and fog sweeping over the sky: the observation scarcely to be depended upon. (i) Unsteadiness and bad definition. (k) 'Objects following this.' (l) 'Of the same R.A.' (m) 'Follows the preceding by two intervals.' (n) 'This follows by about 7s.' (o) 'One of greater N.P.D. preceded a few seconds.' (p) 'The R.A. is roughly approximate.' (q) Bright and well observed. (r) Clouded, but the observation not doubtful.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						"	"		"	"	"	
Sept.16	Zenith Point.....	0. 2,8	5,5	0,1	5,9	0,2	2,2	+5,5	8,545		66. 25. 33,10								B.
Sept.17	(a) ☉ N.L.....	2. 21,9	25,0	19,0	25,4	17,5	16,4				115. 57. 21,28	30,404	58,5	63,0	67,57	87. 20. 3,45		B.	
	☉ S.L.....	4. 31,0	33,5	30,1	35,2	26,4	26,5				116. 29. 31,27				68,86	87. 52. 14,78		B.	
	(b) B.A.C. 6222.....	2. 47,9	51,0	49,2	53,6	49,3	46,9		7,291		141. 33. 46,63	30,385	58,3	53,5	218,00	112. 58. 59,23		B.	
	23 Sagittarii.....	0. 13,4	18,2	13,9	18,0	16,5	14,0				141. 55. 15,72				223,45	113. 20. 33,77		B.	
	B.A.C. 6343.....	2. 5,4	8,5	7,1	10,2	6,6	4,8				142. 12. 7,48				227,90	113. 37. 29,98		B.	
	Zenith Point.....	1. 22,7	24,0	20,3	25,3	19,4	20,3		12,330		66. 25. 33,70								B.
Sept.18	☉ N.L.....	1. 23,4	26,6	22,3	25,8	22,0	19,6		11,597		116. 20. 50,25	30,232	58,4	62,2	68,23	87. 43. 33,08		B.	
	☉ S.L.....	3. 15,0	18,5	15,0	20,5	12,3	11,0		11,597		116. 52. 42,70				69,52	88. 15. 26,82		B.	
Sept.19	Neptune.....	3. 36,1	37,2	36,1	37,9	33,3	31,9			+2 1/2	128. 13. 35,89	30,038	54,3	48,4	109,14	99. 36. 59,63		B.	
	(c) α Pegasi R.....	3. 33,2	32,8	31,4	33,9	29,1	29,0		11,455	+1 1/2	208. 38. 1,79				45,53	75. 35. 25,14		B.	
	α Pegasi.....	3. 35,5	35,8	34,3	37,0	31,0	30,1		11,455	+4	104. 13. 4,87					75. 35. 25,00		B.	
	H. C. 47030.....	2. 35,8	37,5	34,4	38,7	33,1	31,7				121. 17. 35,67	30,026	54,2	47,5	83,43	92. 40. 33,70		B.	
	(d) Iris.....	3. 38,3	38,7	33,5	40,3	35,0	34,7				106. 43. 38,25				49,86	78. 6. 2,71		B.	
	α Andromedæ...	1. 38,6	39,0	37,4	38,7	35,0	34,5			+2 1/2	90. 21. 38,00				26,11	61. 43. 38,71		B.	
	(e) H. C. 245.....	0. 40,4	43,0	37,6	42,6	37,3	36,0				121. 5. 39,60				82,82	92. 28. 37,02		B.	
	(f) Hygeia.....	3. 35,5	36,0	34,9	36,9	31,8	30,4		8,324	+4	111. 9. 9,95				58,22	82. 31. 42,77		B.	
Sept.20	(g) ☉ S.L.....	3. 35,1	33,0	33,3	34,7	29,1	28,0	+7,4	7,852		117. 39. 17,85	30,070	58,6	62,3	71,07	89. 2. 3,70		B.	
	☉ N.L.....	1. 41,7	43,0	39,4	43,1	37,2	35,9		7,852	+2	117. 7. 24,72				69,74	88. 30. 9,24		B.	
	Neptune.....	4. 11,9	11,1	12,4	13,4	8,1	5,9				128. 14. 11,50	30,069	53,5	46,8	109,66	99. 37. 35,94		B.	
Sept.22	☉ S.L.....	2. 12,3	12,0	9,6	13,6	5,3	5,0		13,303		118. 26. 1,34	30,020	59,2	62,2	72,97	89. 48. 49,09		T.	
	☉ N.L.....	0. 16,3	18,6	14,1	18,0	12,6	12,8		13,303		117. 54. 6,64				71,58	89. 16. 53,00		T.	
	Zenith Point....	0. 27,2	28,0	23,2	28,3	21,5	24,5		9,632		66. 25. 33,22							T.	
	Neptune.....	0. 20,8	21,9	18,1	21,0	16,6	17,0				128. 15. 19,32	30,060	53,0	50,5	108,87	99. 38. 42,97		T.	
	Iris.....	3. 42,4	40,9	41,6	44,1	37,0	38,4				106. 58. 41,65	30,048	51,0	47,9	50,30	78. 21. 6,73		T.	
Sept.23	☉ N.L.....	3. 28,6	26,4	26,5	27,4	21,2	19,0		12,689		118. 17. 29,64	30,104	60,3	66,4	72,19	89. 40. 16,61		T.	
	☉ S.L.....	0. 23,7	25,9	20,7	23,5	17,9	17,4		12,689		118. 49. 25,56				73,58	90. 12. 13,92		T.	
Sept.24	H. C. 39981.....	2. 44,3	46,0	45,1	48,0	42,6	41,1				138. 27. 45,20	29,980	57,0	54,4	176,68	109. 52. 16,66		T.	
	Bessel xx. 1106.....	4. 30,4	29,8	30,7	32,3	26,6	24,2				133. 4. 30,12				133,33	104. 28. 18,23		T.	
	Bessel xx. 1203.....	0. 43,9	47,0	42,1	45,9	41,5	39,6			+3	132. 25. 43,20				129,36	103. 49. 27,34		T.	
	H. C. 40616.....	1. 54,9	56,2	54,2	56,9	53,0	51,4				142. 1. 54,92				221,78	113. 27. 11,48		T.	
	Bessel xx. 1486.....	1. 49,4	50,1	48,9	51,1	46,7	44,5				132. 11. 48,92				127,97	103. 35. 31,67		T.	
	H. C. 40994.....	3. 55,8	55,0	54,9	57,9	52,1	50,3			+1	134. 53. 55,26				145,74	106. 17. 55,78		T.	
	H. C. 41200.....	0. 15,9	17,4	12,9	16,1	13,1	11,0				134. 20. 14,45	29,975	56,4	53,8	141,87	105. 44. 11,10		T.	
	29 Capricorni.....	...	...	...	...	...	...		1,856		134. 23. 4,18				142,20	105. 47. 1,16		T.
	H. C. 41544.....	2. 49,8	50,7	48,5	51,6	45,7	44,9			+2	131. 17. 49,11				122,98	102. 41. 26,87		T.	
	H. C. 41760.....	1. 19,0	20,1	17,1	20,5	15,9	14,7				123. 16. 18,20				134,73	104. 40. 7,71		T.	
	Bessel xx1. 603.....	3. 54,7	53,1	53,3	54,6	50,2	47,6				131. 23. 53,22				123,54	102. 47. 31,54		T.	
	Oct. 2	☉ S.L.....	3. 47,9	47,1	48,4	49,3	46,0	42,1			-2	141. 33. 46,85	29,368	52,5	50,0	212,28	112. 58. 53,91		T.
☉ S.L.....		...	...	...	...	...	...		9,983	-1	141. 33. 47,72					112. 58. 54,78		T.
☉ S.L.....		...	...	...	...	...	...		9,978		141. 33. 48,23					112. 58. 55,29		T.
☉ S.L.....		...	...	...	...	...	...		9,963	+1	141. 33. 48,82					112. 58. 55,88		T.
☉ S.L.....		...	...	...	...	...	...		10,020	+2	141. 33. 47,79					112. 58. 54,85		T.
Iris.....		2. 16,8	18,0	16,8	20,7	13,6	13,1				108. 2. 17,08	29,378	51,1	49,5	50,89	79. 24. 42,75		T.	
	(h) Hygeia.....	2. 36,9	37,3	35,3	39,5	33,9	33,1				112. 7. 35,65				58,69	83. 30. 10,12		T.	
Oct. 3	Neptune.....	0. 64,3	64,9	62,1	65,3	60,2	60,0		9,995		128. 21. 3,15	29,534	51,4	49,5	107,63	99. 44. 25,56		T.	
	(i)(k) Iris.....	4. 29,2	33,0	28,1	32,1	26,3	27,9				108. 9. 29,32	29,528	51,4	50,3	51,28	79. 31. 55,38		T.	
Oct. 4	☉ Capricorni....	2. 2,8	3,0	1,0	5,0	0,0	0,6				144. 22. 2,58	29,464	50,4	48,5	263,19	115. 48. 0,55		T.	
	Neptune.....	1. 32,1	32,6	30,4	35,9	28,6	28,6				128. 21. 31,75	29,448	50,0	48,5	107,57	99. 44. 54,10		T.	

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Bad definition and unsteadiness. By accident the micrometer reading was 10",000. (b) Faint. (c) The reflection observation good, the other doubtful from cloud. (d) 'Mag. 7.8.' (e) Cloudy. (f) Very faint and bisected hurriedly after passing the comb, being clouded before. (g) Boiling motion and cloud. Without the dark glass. (h) Doubtfully bisected, so faint from cloud. (i) Very cloudy. (k) Negative correction for Runs.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5".	Micrometer Reading.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
Oct. 4	Iris.....	1. 49,0	49,0	46,7	50,7	43,7	45,8	+7,4			108. 16. 47,87	29,448	50,0	48,6	51,54	79. 39. 14,19	T.
	Hygeia.....	2. 6,7	5,9	5,2	7,4	1,6	2,0				112. 17. 5,33				59,26	83. 39. 39,37	T.
Oct. 6	☉ N.L.....	0. 16,1	18,1	12,5	17,9	12,0	11,2		9,153		123. 20. 32,35	29,678	56,0	55,7	87,55	94. 43. 34,68	T.
	☉ S.L.....	2. 17,2	19,6	13,7	20,6	14,6	12,6		9,153		123. 52. 34,60				89,35	95. 15. 38,73	T.
Oct. 7	(a) Neptune.....	2. 54,2	53,9	52,1	55,6	49,9	48,0				128. 22. 53,02	29,714	52,9	52,0	107,86	99. 46. 15,66	T.
	φ Aquarii.....	2. 38,7	39,0	37,4	41,0	34,6	33,8				125. 27. 38,07	29,720	52,2	51,0	96,06	96. 50. 48,91	T.
	ψ ^a Aquarii.....	1. 46,7	48,0	44,0	49,2	43,8	42,0				129. 1. 46,05				111,09	100. 25. 11,92	T.
	☽ S.L.....	1. 27,6	28,0	25,0	29,1	23,8	22,5				128. 1. 20,36	29,720	51,6	50,0	106,72	99. 24. 41,86	T.
	☽ S.L.....	...	...	...	...	...	...		10,206	-2	128. 1. 19,09					99. 24. 40,59	T.
	☽ S.L.....	...	...	...	...	...	...		10,286	-1	128. 1. 20,39					99. 24. 41,89	T.
	☽ S.L.....	...	...	...	...	...	...		10,466	+1	128. 1. 19,57					99. 24. 41,07	T.
	☽ S.L.....	...	...	...	...	...	...		10,654	+2	128. 1. 18,53					99. 24. 40,03	T.
	(b) Iris.....	4. 8,8	7,2	8,4	11,9	3,6	1,1				108. 39. 7,85				52,54	80. 1. 35,17	T.
	(c) 27 Piscium.....	4. 37,4	36,3	38,4	40,6	34,2	33,2				122. 59. 37,64	29,720	51,2	49,0	87,72	94. 22. 40,14	T.
	33 Piscium.....	3. 60,8	60,1	61,2	64,2	57,0	56,7				125. 9. 1,00				95,29	96. 32. 11,07	T.
	(d) Hygeia.....	1. 15,1	16,0	14,1	17,5	13,1	12,9				112. 31. 15,10				60,25	83. 53. 50,13	T.
Oct. 8	☉ S.L.....	3. 27,5	29,2	27,3	32,1	26,5	24,2		9,709	-1½	124. 38. 35,09	29,804	54,6	55,0	92,55	96. 1. 42,42	T.
	☉ N.L.....	1. 26,0	27,9	24,9	30,1	25,6	22,0		9,709	+4½	124. 6. 31,01				90,67	95. 29. 36,46	T.
	41 Cygni R.....	1. 9,4	10,0	5,7	10,5	6,0	6,2		10,609		224. 5. 55,56	29,892	49,2	44,1	24,22	60. 7. 9,88	T.
	41 Cygni.....	0. 22,1	21,7	20,1	22,9	19,3	17,9		10,609		88. 45. 8,04					60. 7. 7,04	T.
	θ Delphini R. ...	0. 38,0	39,5	34,7	41,0	36,1	36,7		7,480		207. 1. 30,34				48,42	77. 11. 59,30	T.
	θ Delphini.....	3. 41,1	41,1	42,1	44,8	38,6	35,6		7,480	+2	105. 49. 34,12					77. 11. 57,32	T.
	(g)Σ 2721.....	1. 31,9	32,0	29,2	33,9	28,0	26,3				99. 16. 30,60				38,07	71. 38. 43,45	T.
	(h)ε Cephei R. ...	4. 19,5	21,7	16,5	22,2	16,0	18,9		4,652		250. 31. 10,41	29,908	46,0	42,5	4,24	33. 41. 26,57	T.
	ε Cephei.....	3. 7,1	6,5	7,6	8,1	4,6	3,0		4,652		62. 19. 58,38					33. 41. 28,92	T.
	(f)(h)Bessel xxii. 357	4. 33,5	36,2	31,8	34,8	31,3	31,3				130. 44. 33,02				122,53	102. 8. 10,33	T.
	(f)(i)Bessel xxii. 459	2. 62,0	62,1	62,9	63,1	58,5	58,0				130. 53. 1,87				123,29	102. 16. 39,94	T.
	(f)Bessel xxii. 588..	3. 18,0	19,0	19,8	19,9	14,2	14,5				130. 58. 18,38				123,78	102. 21. 56,94	T.
	Neptune.....	3. 18,8	17,7	18,1	19,7	14,0	13,9				128. 23. 17,85	29,908	45,4	41,6	110,95	99. 46. 43,58	T.
	Iris.....	1. 42,3	42,0	41,1	43,7	37,6	38,7				108. 46. 41,33	29,912	44,9	40,4	54,18	80. 9. 10,29	T.
	(h) 27 Piscium.....	4. 37,9	37,9	34,7	38,0	32,6	33,4				122. 59. 35,65				89,87	94. 22. 40,30	T.
	(h) 33 Piscium.....	3. 61,4	63,0	58,4	60,0	57,2	57,5				125. 8. 59,32				97,62	96. 32. 11,72	T.
	Hygeia.....	0. 57,9	57,8	56,7	59,3	53,5	53,4				112. 35. 56,67				61,90	83. 58. 33,35	T.
	☽ S.L.....	1. 30,7	29,1	28,4	30,2	25,0	25,6			-2	123. 36. 22,27	29,910	45,0	40,7	91,92	94. 59. 28,97	T.
	☽ S.L.....	...	...	...	...	...	...		10,095	-1	123. 36. 23,42					94. 59. 30,12	T.
	☽ S.L.....	...	...	...	...	...	...		10,357		123. 36. 21,08					94. 59. 27,78	T.
	☽ S.L.....	...	...	...	...	...	...		10,435	+1	123. 36. 22,55					94. 59. 29,25	T.
	☽ S.L.....	...	...	...	...	...	...		10,653	+2	123. 36. 21,50					94. 59. 28,20	T.
	B.A.C. 205.....	3. 26,0	23,7	25,2	26,3	19,8	20,0				124. 3. 24,35	29,908	44,4	40,2	93,61	95. 26. 32,74	T.
	(h) 20 Ceti.....	3. 63,4	65,1	60,1	64,5	59,5	60,5				120. 34. 1,93				82,15	91. 56. 58,86	T.
Oct. 9	(k) Zenith Point....	0. 32,6	32,8	31,9	31,2	32,6	32,1	+8,5	10,926		66. 25. 13,05						C.
	(l) Zenith Point....	0. 20,9	21,3	19,8	21,1	20,2	21,4	+5,7	10,440		66. 25. 11,68						T.
Oct. 10	☉ N.L.....	2. 22,4	24,1	25,1	25,3	19,1	22,5		11,648		124. 51. 49,18	29,984	59,0	65,0	92,06	96. 15. 19,15	T.
	(h) ☉ S.L.....	4. 27,6	31,7	28,3	29,8	23,8	28,9		11,648		125. 23. 53,90				94,00	96. 47. 25,81	T.
	(m) Zenith Point....	0. 18,0	19,1	16,7	19,6	10,0	20,1		10,346		66. 25. 10,09						T.
	Neptune.....	3. 58,8	57,0	58,8	62,1	49,9	56,6		10,371		128. 23. 50,22	30,130	58,0	57,5	108,25	99. 47. 36,38	T.
	Bessel xxiii. 579.	0. 30,1	33,0	31,7	33,0	24,0	29,5				125. 10. 30,32	30,134	58,0	57,1	95,14	96. 34. 3,37	T.
	(n) Bessel xxiii. 723.	2. 66,9	65,9	66,7	68,7	59,9	66,0				128. 23. 6,27				108,30	99. 46. 52,48	T.
	Iris.....	1. 35,2	35,9	35,8	35,8	28,1	33,9				109. 1. 34,42				53,21	80. 24. 25,54	T.
	H. C. 46918.....	2. 23,0	22,1	23,1	22,9	15,3	21,0				118. 57. 21,68				75,42	90. 20. 35,01	T.
	Bessel xxiii. 1107	3. 11,2	10,3	12,9	12,3	3,1	10,0				119. 8. 10,57				75,91	90. 31. 24,39	T.
	(h) Hygeia.....	4. 60,3	63,0	60,2	61,1	53,5	59,8				112. 44. 59,65	30,130	57,1	56,5	60,65	84. 7. 58,21	T.
	Bessel o. 110....	2. 65,9	66,1	66,2	68,0	57,4	63,5				115. 58. 5,10				67,88	87. 21. 10,89	T.
	Bessel o. 283....	0. 61,1	61,4	60,7	61,5	53,2	59,0				123. 55. 59,67				90,78	95. 19. 28,36	T.

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6. ASSUMED CO-LATITUDE = 37°. 47'. 8".00.

Oct. 9, 0^h, the Circle was taken from the pier and its axis cleaned. The microscopes were then adjusted and the Zenith Point was taken.

(a) Extremely faint from cloud. (b) 'Good observation.' (c) Bisected hurriedly beyond the comb. (d) 'A fainter object south-following.' The circle reading has been diminished 10" conjecturally. (e) Interruption by clouds: both limbs bisected hurriedly, especially N.L. (f) These objects all very faint from cloud, and the bisections more or less doubtful. (g) No star near this: a brighter noticed at the top of the field. (h) Negative correction for Runs. (i) 'The preceding of two a few seconds apart, and of nearly the same N.P.D.' (k) This Zenith Point is not used. (l) Taken at 23^h. On reading the microscopes for Runs soon after, a discordance was noticed in the reading of microscope E, which appears to have continued through Oct. 10. This Zenith Point is therefore not used till Oct. 11. (m) Used only on Oct. 10. The wires of microscope E were probably disarranged by pushing in the eye-piece too far. (n) Extremely faint. The circle readings unsatisfactory this night on account of moisture on the circle and eye-pieces.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refrac- tion.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"					Inch.	"	"		"	
Oct. 10	(a) Bessel α . 355	4. 58,0	59,1	57,8	60,3	49,7	55,1	+5,7			116. 44. 56,65	30,130	57,1	56,5	69,78	88. 8. 4,34	T.
	" Piscium	2. 51,1	51,0	52,6	54,6	43,8	49,6				113. 52. 50,98	30,144	57,0	56,4	63,14	85. 15. 52,03	T.
	" S.L.	2. 24,1	24,9	26,0	26,0	16,1	22,0			-2	114. 22. 17,43				64,26	85. 45. 19,60	T.
	" S.L. ....	...	...	...	...	...	...		10,095	-1	114. 22. 18,53					85. 45. 20,70	T.
	" S.L. ....	...	...	...	...	...	...		10,289		114. 22. 17,61					85. 45. 19,78	T.
	" S.L. ....	...	...	...	...	...	...		10,432	+1	114. 22. 17,77					85. 45. 19,94	T.
	" S.L. ....	...	...	...	...	...	...		10,611	+2	114. 22. 17,20					85. 45. 19,37	T.
Oct. 11	(b) Zenith Point. ....	...	...	...	...	...	...				66. 25. 11,68						T.
	" S.L.	2. 52,9	55,9	55,9	56,4	50,1	51,5		13,690		125. 46. 37,43	30,180	61,3	62,1	96,59	97. 10. 10,34	T.
	" N.L. ....	...	...	...	...	...	...		13,690		125. 14. 32,67				94,58	96. 38. 3,57	T.
	(a) Neptune.	4. 16,3	17,7	14,7	15,4	13,6	15,8				128. 24. 15,43	30,170	57,5	56,5	108,65	99. 48. 0,40	T.
	(a) Iris.	4. 14,9	15,5	13,3	13,0	11,8	13,8				109. 9. 13,57	30,184	57,2	55,6	53,70	80. 32. 3,59	T.
Oct. 14	(a) Bessel xxii. 517.	3. 44,0	44,1	42,3	42,9	41,6	45,1				127. 38. 43,08	29,820	51,6	50,6	105,33	99. 2. 24,73	T.
	(a) Bessel xxii. 630.	3. 44,1	44,0	42,5	42,3	41,9	42,4				132. 33. 42,62				130,52	103. 57. 49,46	T.
	Neptune.	0. 28,3	26,9	28,1	27,9	25,6	26,1				128. 25. 27,23				108,79	99. 49. 12,34	T.
	(c) Iris.	2. 7,8	5,3	10,7	8,1	3,4	5,0				109. 32. 7,12	29,780	50,0	47,5	54,59	80. 54. 58,03	T.
	(d) Hygeia.	3. 27,0	24,1	29,5	26,4	22,1	23,1				113. 3. 26,02	29,768	49,9	48,0	61,63	84. 26. 23,97	T.
Oct. 16	" N.L.	2. 50,2	48,7	51,8	50,6	47,3	46,1		13,481		127. 6. 37,10	29,454	53,5	50,7	101,78	98. 30. 15,20	T.
	(a) " S.L.	4. 58,5	59,3	59,0	60,4	57,4	56,2		13,481		127. 38. 45,90				104,03	99. 2. 26,25	T.
	(c) Parthenope.	1. 11,0	8,1	11,4	3,3	4,1	8,0				114. 46. 8,68	29,582	44,0	40,0	66,11	86. 9. 11,11	T.
Oct. 17	(f) " S.L.	1. 21,5	20,0	24,1	19,9	17,9	17,9		11,571		128. 0. 47,73	29,784	50,0	51,3	106,66	99. 24. 30,71	T.
	Neptune.	1. 32,4	29,0	31,9	29,4	27,6	30,1				128. 26. 30,35	29,892	43,1	39,5	111,67	99. 50. 18,34	T.
Oct. 22	(g) " N.L.	2. 34,3	34,2	36,9	35,1	32,0	32,8	+6,5	11,839		129. 16. 56,42	30,000	58,0	56,6	112,08	100. 40. 45,29	T.
	(a) " S.L.	4. 46,6	47,1	47,0	44,9	42,9	45,0		11,839		129. 49. 7,19				114,69	101. 12. 58,67	T.
	(h) Zenith Point.	0. 28,7	26,2	25,6	26,0	21,4	27,8		10,719		66. 25. 11,05						T.
	(a)(h) Zenith Point.	4. 54,2	53,0	51,4	53,1	48,1	53,1		9,076		66. 25. 11,39						T.
	(h) Zenith Point.	1. 31,1	28,6	28,6	29,2	24,0	29,2		13,723		66. 25. 11,19						T.
Oct. 24	(a) λ Aquarii.	3. 19,5	20,9	18,5	19,9	15,5	18,4				126. 58. 18,42	30,392	50,8	47,0	105,22	98. 22. 0,43	T.
	" Pegasi R.	1. 3,1	2,1	3,2	3,0	0,1	3,0		5,211		208. 37. 42,46				46,20	75. 35. 22,95	T.
	(i) " Pegasi.	0. 60,5	59,0	60,0	60,8	55,9	58,4		5,211	+2½	104. 12. 39,37					75. 35. 22,36	T.
	(k) Hygeia.	1. 17,0	16,6	16,1	16,6	12,1	15,3			+2	113. 46. 15,84	30,390	49,5	44,7	64,94	85. 9. 17,57	T.
Oct. 27	" S.L.	3. 43,6	42,9	46,0	44,6	40,7	42,2	+6,9	11,067		131. 33. 21,94	30,050	55,2	57,2	123,90	102. 57. 22,83	T.
	" N.L.	1. 33,3	32,2	32,2	32,1	27,7	31,0		11,067		131. 1. 9,53				120,95	102. 25. 7,46	T.
	Zenith Point.	0. 15,1	12,9	12,1	13,4	8,1	13,1		10,072		66. 25. 11,01						T.
	(a) Zenith Point.	4. 10,1	9,5	6,5	8,9	4,7	8,9		6,984		66. 24. 10,77						T.
	Zenith Point.	1. 19,2	16,3	16,7	17,3	13,1	16,9		13,134		66. 25. 11,55						T.
Oct. 28	(l) Bessel xx. 1305.	4. 42,5	39,2	45,9	42,5	39,0	39,7				130. 39. 42,53	29,668	50,2	49,0	119,53	102. 3. 39,45	T.
	Bessel xx. 1486.	1. 28,6	29,0	30,5	27,9	25,0	27,0				132. 11. 28,33				128,06	103. 35. 33,38	T.
	Bessel xxi. 28.	0. 29,7	29,0	29,3	29,1	25,0	28,2				133. 15. 28,44				134,63	104. 39. 40,06	T.
	Bessel xxi. 52. ....	...	...	...	...	...	...		12,067	+1	133. 14. 45,40				134,55	104. 38. 56,94	T.
	(m) Σ 2783.	1. 47,7	48,0	47,2	46,2	45,3	46,5			+1	60. 56. 47,46	29,644	50,0	49,0	5,55	32. 18. 38,90	T.
	(a) β Aquarii.	4. 40,6	41,4	40,2	40,0	38,4	40,1				124. 49. 40,03				93,88	96. 13. 10,90	T.
	(a) Σ , 445.	3. 57,8	58,7	56,9	57,1	54,9	55,5			+1	98. 33. 56,62	29,640	50,0	49,0	36,38	69. 56. 29,99	T.
Oct. 31	" N.L.	1. 61,9	61,6	63,7	63,2	58,1	60,1		13,049		132. 20. 58,36	29,578	44,0	44,0	129,95	103. 45. 5,30	T.
	" S.L.	4. 14,5	12,3	17,4	14,0	9,6	12,2		13,049		132. 53. 10,76				133,25	104. 17. 21,00	T.
Nov. 1	" S.L.	2. 47,4	45,6	48,0	46,8	43,3	44,4		10,417		133. 12. 37,86	29,500	48,0	47,2	134,05	104. 36. 48,90	T.
	" N.L.	0. 34,7	34,0	33,4	33,0	29,4	32,9		10,417		132. 40. 24,09				130,70	104. 4. 31,78	T.
	(n) ν Aquarii R.	0. 34,4	30,8	32,6	32,7	28,2	33,5		8,411		182. 16. 5,04	29,506	42,5	39,5	120,76	101. 58. 14,73	T.
	" Aquarii.	3. 35,6	32,4	37,4	34,5	31,7	35,1		8,411	+4	130. 34. 7,90					101. 58. 5,65	T.

ONE REVOLUTION of the MICROMETER = 20".841. ONE INTERVAL from the middle wire for an Equatorial Star = 16".6.
 ASSUMED CO-LATITUDE = 37°.47'.8".00.

(a) Negative correction for Runs. (b) See Oct. 9. (c) Very cloudy. (d) Doubtful observation on account of cloud. (e) No object in the neighbourhood of this. (f) N.L. lost by cloud. (g) Between the observations of Oct. 17 and Oct. 22 microscope E was repaired. (h) Taken Oct. 22, 21^h-22^h. (i) Very cloudy, and the star badly defined. (k) 'Mag. 10.' (l) Extremely faint. (m) 'Not observed to be double: a fainter object followed.' (n) The mercury very much disturbed by wind, and the bisection quite uncertain.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
Nov. 1	29 Capricorni....	2.44,7	41,0	44,7	44,1	39,1	41,9	+6,9			134.22.43,20	29,506	42,5	39,5	144,20	105.47.4,39	T.
	Bessel XXI. 562..	1.47,4	44,9	49,5	46,9	42,5	45,9				129.46.46,60				116,67	101.10.40,26	T.
	Bessel XXI. 572..	...	...	...	...	...	...		6,716		129.47.55,04				116,76	101.11.48,79	T.
	(a) S.L.....	4.47,3	46,7	45,3	44,9	43,2	46,5		9,594	-2	136.59.49,49	29,500	41,3	38,4	165,57	108.24.32,05	T.
	S.L.....	...	...	...	...	...	...		9,732	-1	136.59.48,95					108.24.31,51	T.
	S.L.....	...	...	...	...	...	...		9,765		136.59.50,48					108.24.33,04	T.
	S.L.....	...	...	...	...	...	...		9,880	+1	136.59.50,22					108.24.32,78	T.
	S.L.....	...	...	...	...	...	...		10,031	+2	136.59.49,10					108.24.31,66	T.
	δ Capricorni....	3.22,6	19,9	24,6	21,1	16,8	19,8				135.23.21,55				152,06	106.47.50,60	T.
	Neptune.....	0.38,9	36,6	38,1	37,2	33,1	38,9				128.30.37,27	29,508	39,7	36,5	111,25	99.54.25,51	T.
Nov. 3	⊙ N.L.....	4.5,5	3,7	7,2	5,8	1,5	2,9	+6,9	11,808		133.18.27,69	29,742	42,0	40,8	137,60	104.42.41,93	T.
	⊙ S.L.....	1.21,0	21,2	21,4	21,1	16,6	19,7		11,808		133.50.42,79				141,21	105.15.0,64	T.
	Bessel XXII. 548.	0.25,4	24,6	25,0	23,9	19,4	23,0		10,258		124.15.18,27	29,840	37,8	34,4	95,29	95.38.50,20	T.
	Neptune.....	0.57,0	55,0	56,1	54,9	52,0	54,0				128.30.55,03				113,02	99.54.44,69	T.
	τ Aquarii.....	3.10,2	8,3	13,1	10,1	6,2	9,0				132.58.10,22				137,71	104.22.24,57	T.
	δ Aquarii.....	1.58,1	56,7	59,5	57,1	54,3	55,5				135.11.57,30				153,62	106.36.27,56	T.
	Bessel XXII. 1068	1.35,7	34,4	36,4	35,1	30,1	33,0				127.36.34,48				108,86	99.0.19,98	T.
	(a) Bessel XXII. 1205	4.60,0	60,3	60,8	59,0	56,4	58,4				125.34.59,15				100,34	96.58.36,13	T.
	S.L.....	0.46,6	44,7	46,0	44,6	41,2	43,7		8,740	-2	129.41.4,99				118,77	101.5.0,40	T.
	S.L.....	...	...	...	...	...	...		8,882	-1	129.41.5,00					101.5.0,41	T.
	S.L.....	...	...	...	...	...	...		9,012		129.41.5,22					101.5.0,63	T.
	S.L.....	...	...	...	...	...	...		9,209	+1	129.41.3,98					101.4.59,39	T.
	S.L.....	...	...	...	...	...	...		9,357	+2	129.41.3,71					101.4.59,12	T.
	ψ Aquarii.....	1.21,7	20,3	23,1	19,7	17,0	20,5			+3	129.1.20,43				115,46	100.25.12,53	T.
	B.A.C. 8221.....	3.40,8	41,4	45,9	41,0	38,6	39,1				132.28.41,98	29,848	37,0	33,6	134,84	103.52.53,46	T.
	B.A.C. 8239.....	1.6,2	6,2	7,4	4,8	1,6	4,6				131.6.5,38				126,63	102.30.8,65	T.
	(b) Iris.....	2.35,7	34,0	38,3	34,0	30,0	33,4				111.42.34,82				60,76	83.5.32,22	T.
	Bessel XXIII. 922.	2.41,0	39,1	42,3	38,8	36,1	37,2				118.42.39,68				77,73	90.5.54,05	T.
	(c) Hygeia.....	1.17,1	16,1	18,0	16,0	10,5	14,8				114.21.15,72				66,63	85.44.18,99	T.
Nov. 4	(d) Neptune.....	0.61,9	60,5	61,9	59,2	56,3	59,7				128.31.0,13	29,924	38,0	34,3	113,37	99.54.50,14	T.
	(d) Bessel XXII. 1007	2.13,9	11,0	16,2	11,9	8,3	11,8				130.27.12,68				123,18	101.51.12,50	T.
	(e) Bessel XXII. 1162	3.8,7	6,4	11,2	6,2	3,4	7,2				130.38.7,90				124,17	102.2.8,71	T.
	Bessel XXII. 1292	0.54,3	53,6	55,8	52,2	50,0	52,1				130.5.53,20				121,28	101.29.51,12	T.
	(a)(f) Bessel XXIII. 103	4.58,0	56,1	57,2	54,6	52,5	56,0				128.19.55,72				112,50	99.43.44,86	T.
	(g) Bessel XXIII. 104	...	...	...	...	...	...		8,748	+3	128.20.21,58				112,53	99.44.10,75	T.
	B.A.C. 8221.....	3.42,9	42,0	47,0	42,9	39,0	41,5				132.28.43,40	29,928	37,4	34,3	135,00	103.52.55,04	T.
	B.A.C. 8239.....	1.9,2	7,0	9,9	6,7	3,0	6,2				131.6.7,25				126,78	102.30.10,67	T.
	Iris.....	2.23,0	20,6	24,8	20,1	16,1	21,0				111.47.21,47				61,00	83.10.19,11	T.
	S.L.....	0.10,2	9,4	10,7	7,8	4,3	8,7		8,940	-2	125.20.24,60	29,932	37,5	33,7	99,84	96.44.1,08	T.
	S.L.....	...	...	...	...	...	...		9,071	-1	125.20.25,01					96.44.1,49	T.
	S.L.....	...	...	...	...	...	...		9,329		125.20.22,73					96.43.59,21	T.
	S.L.....	...	...	...	...	...	...		9,469	+1	125.20.22,90					96.43.59,38	T.
	S.L.....	...	...	...	...	...	...		9,581	+2	125.20.23,60					96.44.0,08	T.
	(h) Parthenope.....	4.24,8	22,8	28,1	24,9	18,6	22,3		9,580		116.14.33,35	29,936	37,0	33,3	71,45	87.37.41,44	T.
Nov. 5	⊙ N.L.....	2.11,5	9,9	12,9	10,7	6,9	10,0		14,607		133.55.34,79	29,920	40,3	39,4	143,04	105.19.54,47	T.
	⊙ S.L.....	4.26,2	24,7	29,2	24,6	21,0	23,9		14,607		134.27.49,94				146,88	105.52.13,46	T.
Nov. 6	⊙ S.L.....	0.61,8	62,6	63,5	61,7	59,8	61,9		9,886		134.46.4,50	29,770	43,6	45,5	146,49	106.10.27,63	T.
	⊙ N.L.....	3.43,9	43,1	46,8	44,1	43,0	43,2		9,886		134.13.47,25				142,63	105.38.6,52	T.
	Zenith Point...	0.10,9	9,2	9,7	9,7	4,9	11,9		9,907		66.25.11,36						T.
	(i) S.L.....	2.39,1	37,5	40,0	36,8	33,4	37,3		9,150	-2	116.2.49,29	29,808	41,9	40,3	69,63	87.25.55,56	T.
	S.L.....	...	...	...	...	...	...		9,261	-1	116.2.50,16					87.25.56,43	T.
	S.L.....	...	...	...	...	...	...		9,491		116.2.48,56					87.25.54,83	T.
	S.L.....	...	...	...	...	...	...		9,611	+1	116.2.49,27					87.25.55,54	T.
	S.L.....	...	...	...	...	...	...		9,772	+2	116.2.49,13					87.25.55,40	T.
	♋ Piscium.....	2.29,7	28,3	32,5	27,4	25,0	27,2				110.12.28,90				56,78	81.35.22,32	T.

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Negative correction for Runs. (b) No object near this. (c) 'Doubtful observation.' (d) Mist on the eye-piece. (e) 'Several brighter of greater N.P.D. preceded.' (f) 'Not good.' (g) 'Another south-following.' (h) Extremely faint. (i) Microscope E was set down 53,4 and is altered conjecturally.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Interval from the middle wire.	Concluded Circle reading.	Barom.	Thermum.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						"	"			
Nov. 8	(a) ☉ N.L.....	4. 6,1	3,2	7,8	4,5	2,9	3,8	+6,9	9,280	+4	134. 49. 19,12	29,884	45,2	45,9	147,33	106. 13. 43,09	T.
Nov. 10	☉ S.L.....	1. 21,0	21,4	20,7	18,9	16,9	21,4	+9,9	10,769		135. 56. 4,45	29,600	45,3	45,7	154,56	107. 20. 35,59	T.
	☉ N.L.....	3. 62,9	62,7	66,3	62,1	59,9	62,1		10,769		135. 23. 47,95			150,31	106. 48. 14,84	T.	
	(b) Bessel xxi. 458.	1. 2,8	3,9	4,1	3,1	0,9	1,0				132. 56. 2,97	29,656	43,9	40,7	134,82	104. 20. 14,37	T.
	Bessel xxi. 603.	3. 31,0	29,9	34,1	29,4	28,0	29,1				131. 23. 31,40			125,58	102. 47. 33,56	T.	
	γ Tauri R.....	3. 30,9	29,4	33,9	30,2	27,7	30,4		8,670		209. 28. 59,29	29,812	43,0	37,6	44,81	74. 44. 4,94	T.
	γ Tauri.....	0. 56,5	56,7	56,2	54,4	52,8	54,3		8,670		103. 21. 23,17				74. 44. 4,56	T.	
	δ ^a Tauri.....	1. 9,8	8,8	10,1	7,0	5,6	9,3		8,670		101. 31. 36,52			41,90	72. 54. 15,00	T.	
	(c)(d) Aldebaran R. ...	4. 54,8	55,0	53,7	52,1	52,5	56,0		8,520		210. 25. 24,82			43,30	73. 47. 37,90	T.	
	(c) Aldebaran.....	4. 26,0	28,0	26,6	24,9	22,0	26,5		8,520	+2	102. 24. 56,48				73. 47. 36,36	T.	
	☉ N.L.....	0. 12,9	14,3	14,9	12,9	11,2	12,5		10,537	-2	99. 34. 58,39	29,844	41,4	37,0	39,04	70. 57. 34,01	T.
	☉ N.L.....	...	...	...	...	...	...		10,672	-1	99. 34. 57,32				70. 57. 32,94	T.	
	☉ N.L.....	...	...	...	...	...	...		10,772		99. 34. 57,09				70. 57. 32,71	T.	
	☉ N.L.....	...	...	...	...	...	...		10,873	+1	99. 34. 56,95				70. 57. 32,57	T.	
	☉ N.L.....	...	...	...	...	...	...		11,000	+2	99. 34. 56,36				70. 57. 31,98	T.	
	(e) Rigel R.....	0. 34,1	32,9	32,1	32,5	31,0	34,2		7,117		185. 51. 33,05			105,54	98. 22. 31,91	T.	
	Rigel.....	2. 48,2	48,8	52,5	47,1	46,5	47,5		7,117		126. 58. 49,45				98. 22. 31,57	T.	
	Arcturus R.....	2. 54,0	50,9	53,7	52,1	50,0	54,0		16,817		214. 10. 31,33	30,016	46,9	39,7	37,69	70. 2. 25,78	T.
	Arcturus.....	2. 15,0	15,1	17,1	13,9	10,6	10,8		16,817		98. 39. 52,41				70. 2. 26,68	T.	
Nov. 11	(f) ☉ S.L.....	2. 56,3	53,9	57,2	55,1	53,0	55,5		10,242		136. 12. 51,09	30,018	43,4	42,5	160,13	107. 37. 27,80	T.
	☉ N.L.....	0. 35,1	35,0	34,1	33,4	31,3	33,3		10,242		135. 40. 28,84			155,67	107. 5. 1,09	T.	
Nov. 12	Zenith Point....	0. 10,3	8,6	10,3	8,1	4,7	10,3		9,872		66. 25. 11,42						T.
Nov. 13	☉ N.L.....	3. 38,4	36,6	41,0	38,0	35,0	37,5		11,510		136. 13. 7,48	30,370	43,4	42,2	162,14	107. 37. 46,20	T.
	☉ S.L.....	0. 58,8	59,9	60,4	58,1	56,8	59,0		11,510		136. 45. 27,70			166,89	108. 10. 11,17	T.	
Nov. 14	☉ S.L.....	0. 53,0	52,0	52,2	54,3	49,1	55,6		8,610		137. 1. 21,94	30,242	43,2	41,4	168,88	108. 26. 7,40	T.
	☉ N.L.....	3. 31,3	30,2	33,8	33,6	26,6	33,8		8,610		136. 29. 1,67			164,03	107. 53. 42,28	T.	
	Neptune.....	1. 63,5	61,0	64,0	59,5	59,6	61,0				128. 32. 2,10	30,182	39,4	34,0	114,49	99. 55. 53,17	T.
	(g) Bessel xxii. 752.	...	...	...	...	...	...		10,704		128. 31. 47,43			114,48	99. 55. 38,49	T.	
	Iris.....	2. 51,0	49,7	54,2	50,0	48,1	49,1				112. 22. 51,28	30,162	39,0	34,2	62,76	83. 45. 50,62	T.
	(h) Parthenope.....	3. 16,8	16,0	20,9	17,1	11,9	15,7				116. 38. 17,48	30,132	37,4	32,4	73,07	88. 1. 27,13	T.
Nov. 15	☉ N.L.....	4. 25,7	26,0	30,9	26,7	21,9	27,2		9,597		136. 44. 36,25	29,920	40,0	36,7	166,21	108. 9. 19,04	T.
	☉ S.L.....	1. 48,4	48,4	49,3	47,5	44,2	48,9		9,597		137. 16. 56,78			171,18	108. 41. 44,54	T.	
	Neptune.....	1. 62,4	61,1	62,8	60,2	57,9	60,5				128. 32. 1,47	29,904	37,9	33,1	113,66	99. 55. 51,71	T.
	Bessel xxii. 752.	...	...	...	...	...	...		10,576		128. 31. 49,47			113,64	99. 55. 39,69	T.	
	(h)(c) Parthenope....	4. 35,5	35,1	36,7	34,1	30,2	36,0				116. 39. 34,47	29,896	36,4	33,1	72,44	88. 2. 43,49	T.
Nov. 16	(c) ☉ S.L.....	4. 18,2	17,9	20,7	16,9	14,7	17,0		8,993	+4½	106. 44. 24,34	29,722	33,0	28,3	51,42	78. 7. 12,34	T.
Nov. 17	☉ S.L.....	1. 12,9	16,0	14,0	14,1	10,9	15,1		7,553		137. 47. 5,25	29,722	37,1	34,3	175,78	109. 11. 57,61	T.
	☉ N.L.....	3. 52,0	53,0	55,0	53,1	50,4	52,2		7,553		137. 14. 44,88			170,57	108. 39. 32,03	T.	
Nov. 18	☉ N.L.....	4. 19,8	16,9	23,9	19,6	15,0	19,8	+9,5	10,135		137. 29. 17,72	29,770	36,0	36,2	172,46	108. 54. 6,36	T.
	☉ S.L.....	1. 41,9	40,3	43,9	41,0	36,1	41,2		10,135		138. 1. 38,46			177,79	109. 26. 32,43	T.	
	Neptune.....	1. 63,2	61,0	64,7	60,8	58,3	61,0				128. 32. 2,13	29,808	35,0	33,4	113,23	99. 55. 51,54	T.
	Iris.....	0. 41,6	39,1	42,9	39,9	37,0	42,6				112. 30. 40,72	29,792	34,9	33,0	62,43	83. 53. 39,33	T.
Nov. 19	(i) ☉ S.L.....	0. 43,2	44,6	44,9	41,6	41,6	44,0		9,671		138. 15. 50,39	29,732	36,0	36,3	179,96	109. 40. 46,53	T.
	☉ N.L.....	3. 22,9	22,0	27,8	22,9	20,0	25,0		9,671		137. 43. 31,38			174,51	109. 8. 22,07	T.	
	Arcturus R.....	0. 25,4	23,3	24,8	23,1	19,4	26,0		9,867		214. 10. 26,57	29,834	35,6	36,6	37,71	70. 2. 30,96	T.
	(c) Arcturus.....	4. 51,9	53,0	53,7	50,9	49,2	50,0		9,867		98. 39. 54,17				70. 2. 28,06	T.	
Nov. 20	☉ N.L.....	2. 27,8	26,3	30,0	27,9	23,3	28,9		10,193		137. 57. 24,11	29,840	38,3	38,0	176,82	109. 22. 17,11	T.
	(c) ☉ S.L.....	4. 48,3	49,9	49,0	47,9	45,6	50,0		10,193		138. 29. 44,36			182,40	109. 54. 42,94	T.	

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47', 8",00.

(a) Too late for bisection of S.L.
 mercury.

(b) 'Brighter objects of less N.P.D. preceded.'
 (c) A mass of diffused light and extremely unsteady.

(f) Faint from clouds.

(c) Negative correction for Runs.

(g) 'Following the Planet about 1m.'

(d) Tremor of the

(h) Extremely

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		" "	" "	" "	" "	" "	" "						" "	" "			
Nov.20	Neptune.....	1.58,7	57,0	60,1	56,1	55,1	58,0	+9,5			128.31.58,10	29,976	36,4	34,7	113,54	99.55.47,82	T.
	Iris.....	3.10,0	7,8	12,4	8,2	6,0	9,6				112.33.9,98	29,984	36,0	33,5	62,86	83.56.9,02	T.
	Parthenope.....	2.64,9	62,0	67,4	63,1	59,7	63,2				116.43.4,35	30,010	34,5	31,1	73,18	88.6.13,71	T.
	50 Cassiopeiæ R.....	2.37,0	33,5	39,3	34,6	30,7	37,5		5,604		265.54.7,87				21,53	18.17.50,42	T.
	(a) 50 Cassiopeiæ ...	4.47,8	47,9	48,4	43,3	45,6	47,8		5,604	+½	46.56.18,45					18.17.53,10	T.
	α Arietis.....	1.51,8	50,3	54,1	49,3	49,6	49,9				95.51.51,40				34,34	67.14.21,92	T.
	ι Persei R.....	0.57,9	56,3	57,0	55,5	52,9	59,9		6,529		249.22.9,21				3,13	34.50.7,48	T.
	ι Persei.....	1.59,0	58,1	61,9	56,9	57,2	58,4		6,529	+2¾	63.28.13,15					34.50.6,20	T.
	Rigel.....	3.47,9	46,0	54,0	48,2	46,0	48,1				126.58.49,57	30,000	31,7	29,7	107,74	98.22.33,49	T.
Nov.21	(b) Iris.....	3.62,3	60,0	67,6	60,8	59,6	62,0			+4½	112.34.3,60	29,748	37,9	39,0	61,68	83.57.1,46	T.
	Zenith Point.....	0.17,2	15,2	15,9	14,8	10,8	18,9		10,179		66.25.11,82						T.
Nov.22	☉ N.L.....	0.28,8	30,3	28,9	27,6	24,4	29,4		14,059		138.24.3,78	30,000	39,5	42,0	180,83	109.49.0,79	B.
	☉ S.L.....	2.47,4	49,0	49,6	48,0	45,4	47,5		14,059		138.56.24,11				186,65	110.21.26,94	B.
	Neptune.....	3.15,9	13,9	18,3	13,3	11,6	13,4		14,059		128.31.50,86	30,078	40,0	39,7	112,73	99.55.39,77	B.
	β Ceti.....	3.17,2	16,3	20,0	16,5	14,4	18,7				137.23.18,23	30,092	39,3	38,2	172,63	108.48.7,04	B.
	(c) Bessel o. 735.....	3.62,8	60,9	65,5	61,9	59,2	61,3				111.59.3,20				61,24	83.22.0,62	B.
	Bessel i. 454.....	4.54,4	52,6	58,2	53,7	50,5	53,2				115.14.55,32	30,092	39,3	36,8	68,85	86.38.0,35	B.
	(d) Parthenope.....	3.8,4	6,4	10,0	6,8	3,6	6,9				116.43.8,00				72,51	88.6.16,69	B.
	Bessel i. 694.....	4.30,0	28,0	33,8	27,9	25,4	28,5				112.49.30,33				63,25	84.12.29,76	B.
	H. C. 3386.....	0.38,0	37,1	37,8	34,6	34,3	38,3				113.20.36,87				64,40	84.43.37,45	B.
	α Arietis R.....	3.14,4	12,3	16,7	12,5	10,6	15,9		9,300		216.58.29,34				34,03	67.14.24,51	B.
	(e) α Arietis.....	1.36,0	35,1	37,3	34,8	33,0	34,9		9,300	+2	95.51.50,52					67.14.20,73	B.
	☉ S.L.....	1.32,7	32,0	34,0	31,1	29,6	32,8		9,565		139.21.41,59	29,410	43,2	46,8	185,81	110.46.43,58	B.
	☉ N.L.....	4.10,5	9,4	13,0	10,5	7,5	10,4		9,565	+1	138.49.20,49				179,91	110.14.16,58	B.
	(f) Neptune.....	1.40,9	39,9	41,0	38,2	37,3	40,5			+4	128.31.39,74	29,400	40,0	37,3	110,74	99.55.26,66	T.
	(g) Bessel xxiii. 678.....	2.36,1	34,8	36,8	34,9	31,4	35,3				120.47.35,70				81,94	92.10.53,82	B.
	Bessel xxiii. 768.....	0.44,2	43,8	43,4	40,8	40,1	42,4				117.20.42,67				72,36	88.43.51,21	B.
Nov.24	Iris.....	0.41,2	40,3	40,9	38,0	37,2	41,2		10,293		112.35.33,89				61,24	83.58.31,31	B.
	Parthenope.....	2.18,3	16,5	19,0	16,3	13,4	17,0		10,293		116.42.11,36	29,400	38,7	35,0	71,07	88.5.18,61	B.
	(h) Bessel iii. 783.....	0.32,8	33,0	34,0	31,0	30,0	33,8				127.40.32,58	29,400	38,0	35,3	107,34	99.4.16,10	B.
	☉ S.L.....	3.18,5	18,6	21,5	20,3	14,0	19,8		8,878	+2	139.33.42,69	29,420	38,4	37,8	191,77	110.58.50,64	B.
	☉ N.L.....	0.57,5	59,0	57,4	57,5	55,1	60,0		8,878	+2	139.1.20,89				185,60	110.26.22,67	B.
	Neptune.....	1.11,1	11,0	12,2	9,1	6,5	11,4		8,878		128.31.33,96	29,408	38,5	31,3	112,17	99.55.22,31	B.
	Iris.....	0.27,8	26,9	28,4	25,3	22,6	29,2				112.35.26,83	29,400	37,3	30,8	62,08	83.58.25,09	B.
	(a) π Piscium.....	4.17,8	17,8	17,6	15,4	12,6	19,0				107.14.16,48	29,430	36,8	29,8	51,65	78.37.4,31	B.
	(h) (i) Parthenope.....	1.39,0	37,2	39,6	36,5	34,0	38,0				116.41.37,88				71,91	88.4.45,97	B.
	(k) * R. 1 ^h . 41 ^m . 48 ^s	1.57,4	54,8	58,4	54,6	52,5	56,3				113.56.56,27				65,30	85.19.57,75	B.
	Bessel i. 830.....	3.29,3	27,0	33,0	29,1	23,8	28,5				108.43.29,57				54,42	80.6.20,17	B.
	Bessel i. 896.....	4.54,4	51,0	57,5	51,8	49,6	52,1				103.24.54,28				45,06	74.47.35,52	B.
	α Arietis R.....	3.37,5	34,3	39,5	34,3	32,6	36,1		10,341		216.58.29,74				33,78	67.14.23,86	B.
	(l) α Arietis.....	1.58,0	56,4	60,0	56,0	54,9	57,0		10,341	+1	95.51.50,60					67.14.20,56	B.
	ι Persei.....	1.42,5	39,6	42,3	39,8	37,4	43,2		8,545		249.22.11,64					34.50.5,09	B.
	ι Persei.....	2.38,2	37,5	40,8	36,8	35,5	38,1		8,545	+1½	63.28.9,45					34.50.2,54	B.
Nov.26	(m) Bessel i. 68.....	4.17,4	14,0	20,4	14,0	11,4	14,9				118.19.16,70	29,660	37,3	34,8	75,98	89.42.28,86	B.
	H. C. 2587.....	0.29,6	28,0	29,5	26,9	23,4	29,9				117.55.28,02				74,91	89.18.39,11	B.
	Bessel i. 356.....	2.22,2	19,0	22,6	17,7	15,7	20,6				108.57.20,37				54,70	80.20.11,25	B.
	Bessel i. 480.....	4.21,3	17,0	23,3	18,3	14,0	17,8				111.34.19,98				59,93	82.57.16,09	B.
	(n) Parthenope.....	4.32,0	28,0	34,4	29,1	25,0	29,4		5,814		116.40.58,29				71,68	88.4.6,15	B.
	(o) Bessel i. 694.....	4.32,0	29,0	35,0	29,6	26,3	30,1				112.49.31,75				62,61	84.12.30,54	B.
	α Arietis R.....	3.28,2	24,8	30,5	25,2	22,5	27,4		9,930		216.58.28,98				33,68	67.14.24,52	B.
	α Arietis.....	1.51,1	48,8	53,0	48,3	48,6	49,0		9,930	+2	95.51.52,08					67.14.21,94	B.
Nov.29	☉ N.L.....	1.31,0	29,0	31,3	29,6	26,5	32,0	+9,9	13,020		139.45.27,43	30,106	37,0	34,2	200,14	111.10.44,74	B.
	☉ S.L.....	3.53,0	50,5	55,8	52,6	50,4	52,3		13,020		140.17.50,76				207,05	111.43.14,98	B.

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8",00.

(a) Negative correction for Runs. (b) Not seen earlier: the eye-piece misty and bisection doubtful. (c) Doubtful from cloud: the night unfavorable for observing. (d) A brighter object of somewhat less N.P.D. was noticed. (e) Beautifully steady. (f) Bisection by T. (g) Faint. Mist on the eye-piece. (h) Too faint to bisect with certainty. (i) 'North-following a bright star.' (k) Mistaken for Bessel i. 750 through error in the working catalogue. (l) Blazing. (m) 'One of equal magnitude preceded high in the field.' (n) A preceding and fainter object was also bisected. (o) 'A fainter north-preceding.'

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.			Observer.
		A	B	C	D	E	F						Int.	Ext.					
		"	"	"	"	"	"						Inch.	"		"	"	"	
Nov. 29	(a) S.L.	3.29,0	27,2	31,4	27,4	24,6	29,8	+9,9	13,021	-1	135.17.23,87	30,108	35,5	29,7	157,27	106.41.58,31	B.		
	» S.L. ....	...	...	...	...	...	...		12,936	+2	135.17.33,01					106.42.7,45	B.		
Dec. 2	(b) S.L.	4.55,0	51,9	58,0	52,4	51,6	53,9		9,370	-2	122.45.2,19	30,174	38,0	36,3	90,62	94.8.29,98	B.		
	» S.L. ....	...	...	...	...	...	...		9,581	-1	122.45.0,97					94.8.28,76	B.		
	» S.L. ....	...	...	...	...	...	...		9,772		122.45.0,17					94.8.27,96	B.		
	» S.L. ....	...	...	...	...	...	...		9,870	+1	122.45.1,29					94.8.29,08	B.		
	» S.L. ....	...	...	...	...	...	...		10,045	+2	122.45.0,78					94.8.28,57	B.		
	B.A.C. 205.	3.3,1	0,5	5,9	0,0	0,0	1,4				124.3.2,80				95,21	95.26.35,18	B.		
	20 Ceti.	3.40,9	38,7	42,5	37,9	36,8	38,5				120.33.40,42				83,55	91.57.1,14	B.		
	Zenith Point.	0.10,8	8,5	8,4	7,8	5,5	10,6		9,894		66.25.10,83						B.		
Dec. 4	(c) S.L.	3.40,0	36,5	42,4	38,4	36,7	39,4		9,405		141.3.52,48	30,198	37,9	39,5	215,84	112.29.25,49	B.		
	» N.L.	1.20,9	19,0	21,3	18,5	17,8	22,0		9,405		140.31.32,75				208,37	111.56.58,29	B.		
Dec. 8	» N.L.	0.22,2	21,3	20,9	21,3	19,0	21,8	+10,0	8,822		141.0.45,75	29,920	47,4	52,3	207,49	112.26.10,15	B.		
	» S.L.	2.43,6	43,4	45,4	44,0	43,3	43,7		8,822		141.33.9,35				215,15	112.58.41,41	B.		
	(d) Neptune.	4.5,6	1,5	6,5	2,3	0,9	3,4				128.29.4,73	30,050	46,5	46,4	110,85	99.52.52,49	B.		
	(e) Bessel II. 1082.	4.56,0	51,4	57,6	53,7	51,1	53,1				106.19.55,47	30,136	44,0	41,0	50,03	77.42.42,41	B.		
	(f) H. C. 5967.	1.61,9	58,7	62,2	59,4	57,4	60,8				100.52.0,73				41,03	72.14.33,67	B.		
	Bessel III. 173.	3.44,5	40,1	45,5	41,6	39,6	42,3				103.58.43,50				45,99	75.21.26,40	B.		
	H. C. 6247.	0.54,8	52,3	54,3	52,8	51,0	53,9				102.25.53,48				43,48	73.48.33,87	B.		
	H. C. 6378.	3.26,8	22,7	27,6	23,8	20,8	24,2				101.58.25,45				42,76	73.21.5,12	B.		
	H. C. 6525.	1.33,6	31,0	33,8	30,9	29,5	31,8				102.31.32,27				43,63	73.54.12,81	B.		
	» Orionis.	2.21,5	17,4	21,4	18,1	15,3	19,2				104.37.19,58	30,159	42,3	38,3	47,38	76.0.3,87	B.		
	11 Orionis R.	0.20,5	20,0	21,2	20,4	17,8	22,0		12,092		209.24.36,82				45,38	74.48.27,65	B.		
	11 Orionis.	1.28,9	26,6	27,8	26,3	22,5	27,2		12,092	+2½	103.25.43,67					74.48.25,96	B.		
	Capella R.	2.8,8	6,7	9,5	6,6	4,9	8,9		7,941	+1½	240.2.50,83				6,73	44.9.34,99	B.		
	Capella.	1.42,9	40,9	43,4	41,7	39,9	42,4		7,941	+3	72.47.26,74					44.9.30,38	B.		
	» Tauri R.	0.37,2	35,4	35,0	34,6	32,8	37,7		7,913	-1½	222.41.18,96				26,48	61.31.26,61	B.		
	» Tauri.	3.16,4	12,3	18,0	14,1	10,4	13,4		7,913	+½	90.8.58,72					61.31.22,11	B.		
	(g) S.L.	3.27,5	24,3	30,0	26,5	22,3	25,4		5,879	-2	98.34.50,27				37,86	69.57.25,04	B.		
	» S.L. ....	...	...	...	...	...	...		5,983	-1	98.34.49,41					69.57.24,18	B.		
	» S.L. ....	...	...	...	...	...	...		6,064		98.34.49,16					69.57.23,93	B.		
	» S.L. ....	...	...	...	...	...	...		6,163	+1	98.34.48,64					69.57.23,41	B.		
	» S.L. ....	...	...	...	...	...	...		6,215	+2	98.34.49,22					69.57.23,99	B.		
Dec. 9	(h)(i) S.L.	2.26,1	23,0	25,9	22,4	19,1	24,1		5,300	-2	97.9.1,30	29,986	49,0	53,0	34,53	68.31.32,94	B.		
	» S.L. ....	...	...	...	...	...	...		5,305	-1	97.9.1,58					68.31.33,22	B.		
	» S.L. ....	...	...	...	...	...	...		5,328		97.9.1,60					68.31.33,24	B.		
	» S.L. ....	...	...	...	...	...	...		5,357	+1	97.9.1,61					68.31.33,25	B.		
	» S.L. ....	...	...	...	...	...	...		5,392	+2	97.9.1,63					68.31.33,27	B.		
Dec. 10	(i)(k) Zenith Point.	0.61,5	59,4	59,9	61,6	56,9	61,6		12,369		66.25.11,09						B.		
Dec. 11	(l) S.L.	4.14,6	11,0	15,9	14,9	11,2	12,4		6,875	+1½	141.50.19,61	30,414	47,4	45,6	226,18	113.16.2,70	B.		
	» N.L.	1.50,5	48,4	49,2	50,3	46,4	48,6		6,875	+2	141.17.54,26				217,98	112.43.29,15	B.		
	(m) » Ursæ Min. R.	3.20,0	15,5	22,1	18,1	12,4	18,3		11,804		280.47.41,15	30,426	47,8	48,4	40,69	3.23.57,25	B.		
	» Ursæ Minoris.	3.19,8	15,0	20,6	19,4	15,5	17,4		11,804		32.2.42,50					3.23.58,72	B.		
	(n) Neptune.	1.53,8	49,0	53,8	50,9	48,6	51,3		20,768		128.28.7,41	30,472	46,4	43,8	112,93	99.51.57,25	B.		
	Iris.	1.62,4	58,1	63,1	60,7	57,6	60,4		12,292		112.6.13,28				61,55	83.29.11,74	B.		
	(o) » Ceti R.	0.48,8	43,7	48,6	47,5	45,7	49,0		6,577		175.26.58,82	30,480	44,3	38,6	174,71	108.48.14,98	B.		
	» Ceti.	2.9,6	4,8	9,5	7,4	4,6	8,3		6,577	+2½	137.23.19,10					108.48.10,72	B.		
	(p) Polaris R.	2.19,0	13,9	18,8	15,8	11,0	16,4		7,545		282.42.59,15	30,492	44,2	40,8	44,47	1.28.35,47	B.		
	(p) Polaris.	1.28,0	23,0	26,6	24,1	21,3	26,0		7,545		30.7.23,25					1.28.35,69	B.		
	(p) Polaris R.	2.63,6	57,5	63,4	60,5	55,7	60,4		10,050		282.42.59,28					1.28.35,34	B.		
	(p) Polaris.	2.27,0	22,0	27,0	24,1	20,1	23,7		10,050		30.7.24,25					1.28.36,69	B.		
	(p) Polaris R.	2.38,3	33,2	38,1	35,5	30,7	36,4		8,903		282.42.58,41					1.28.36,21	B.		
	(p) Polaris.	1.62,0	57,0	61,1	58,7	55,6	58,8		8,903		30.7.23,42					1.28.35,86	B.		

ONE REVOLUTION of the MICROMETER = 20",841. ONE INTERVAL from the middle wire for an Equatorial Star = 16",6.
 ASSUMED CO-LATITUDE = 37°.47'.8",00.

(a) Extremely faint: the observation quite uncertain. (b) The sky had just become clear. (c) Faint; thick haze. (d) Extremely faint from cloud. (e) Cloudy. (f) A fainter north-following. (g) Limb very uneven, but steady. (h) Very faint from thick cloud and difficult to bisect. (i) The instrument dripping with moisture. (j) The division bisected by microscope D very obscure. (k) Limbs ragged. (l) Extremely faint. (m) Another object was also bisected. (n) Had definition: south wind blowing. (o) Times by Molyneux, 18h.22m.21s and 18h.24m.32s. M fast on H, 2m.43s. (p) Times by Molyneux, 0h.54m.46s, 0h.56m.11s, 1h.3m.35s, 1h.4m.33s, 1h.11m.21s, and 1h.12m.11s. M fast, 1m.41s.

Month and Day.	NAME OF OBJECT.	Microscope Readings.						Correction for Runs for 5'.	Micrometer Reading.	Intervals from the middle wire.	Concluded Circle reading.	Barom.	Thermom.		Refraction.	Apparent N.P.D. from the Observation.	Observer.
		A	B	C	D	E	F						Int.	Ext.			
		"	"	"	"	"	"						Inch.	"			
Dec. 11	(a) Parthenope	1.65,3	60,6	65,0	62,4	58,2	62,5	+10,0	14,247		116. 5. 34,49	30,492	44,2	40,8	71,26	87. 28. 42,66	B.
	Bessel i. 694.	4. 30,5	24,0	33,1	27,5	23,2	27,6		10,000		112. 49. 29,12				63,55	84. 12. 29,58	B.
	Bessel i. 801.	0. 60,4	55,3	59,5	55,7	53,4	57,3				109. 45. 57,25				57,13	81. 8. 51,29	B.
	(b) Bessel i. 896.	4. 56,8	54,0	55,4	54,1	51,2	55,5				103. 24. 54,47				45,62	74. 47. 37,00	B.
	Bessel i. 948.	2. 57,9	52,3	59,0	53,5	52,1	54,3			+2	105. 2. 55,97				48,38	76. 25. 41,26	B.
	Bessel i. 1045	0. 64,0	60,5	64,5	61,2	58,0	61,6				108. 51. 1,97				55,33	80. 13. 54,21	B.
	(b)(c) γ Ceti R.	4. 41,5	39,4	40,9	38,0	37,3	41,5		9,011	+3	196. 50. 0,18	30,497	43,3	39,7	71,22	87. 23. 30,13	B.
	(b) γ Ceti	4. 61,4	59,2	60,3	58,9	56,5	60,2		9,011	+4	116. 0. 20,14					87. 23. 28,27	B.
	(d) Rigel R.	1. 38,8	35,5	39,0	38,4	33,8	38,1		10,507		185. 51. 27,23	30,500	41,4	36,4	107,99	98. 22. 39,85	B.
	Rigel	3. 64,0	59,1	68,5	61,5	59,4	60,2		10,507	+2	126. 58. 52,79					98. 22. 37,69	B.
	(e) δ Ursæ Min. SP. R.	1. 11,0	6,3	10,2	8,0	3,0	9,3		12,093		287. 35. 26,10				53,44	3. 24. 0,45	B.
	δ Ursæ Min. SP.	0. 48,5	44,4	49,2	44,2	43,5	46,1		12,093		25. 14. 59,93					3. 23. 56,60	B.
	\odot N.L.	2. 15,5	12,2	15,5	13,2	9,4	14,2		8,795	+3	141. 22. 38,45	30,470	40,8	37,7	223,25	112. 48. 18,61	B.
	\odot S.L.	4. 34,0	30,5	39,8	32,0	30,8	33,0		8,795	+3	141. 54. 59,22				231,67	113. 20. 47,80	B.
Dec. 17	(f) Neptune	0. 30,6	28,5	31,6	26,7	25,8	29,4		8,529	+4	128. 25. 59,20	30,232	42,4	39,6	112,87	99. 49. 48,98	T.
Dec. 23	(g) \odot N.L.	4. 62,0	61,4	62,9	60,3	58,1	64,3	+9,7	9,099		141. 45. 20,28	30,110	42,9	42,3	224,19	113. 11. 2,00	B.
	\odot S.L.	2. 25,3	24,2	27,1	24,2	19,9	25,1		9,099		142. 17. 43,85				232,84	113. 43. 34,22	B.
Dec. 24	Zenith Point.	0. 15,4	12,7	16,1	12,5	9,3	15,8		10,156		66. 25. 10,47						B.

ONE REVOLUTION of the MICROMETER = 20'',841. ONE INTERVAL from the middle wire for an Equatorial Star = 16'',6.
 ASSUMED CO-LATITUDE = 37°. 47'. 8'',00.

(a) Very faint. (b) Negative correction for Runs. (c) A mere patch of light. (d) Steady. (e) Times by Molyneux, 6h. 25m. 0s and 6h. 26m. 21s. M fast on H, 2m. 45s. (f) Bisected by T. (g) Bad definition.

MEAN NORTH POLAR DISTANCES OF THE STARS

OBSERVED IN THE YEAR 1851,

AS DEDUCED FROM EACH DAY'S OBSERVATION;

AND THE

CONCLUDED MEAN NORTH POLAR DISTANCES,

JANUARY 1, 1851;

WITH THE ANNUAL VARIATIONS.

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1851, as observed.	Approximate R.A. Jan. 1, 1851.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1851.	Annual Variation.	Notes.
				"	"	h. m. s.		° ' "	"	
1	α Andromedæ.....	Sept. 19		+ 14.38	53.09	0. 0. 42		61.43.54.88	-20,054	No. 2. Bessel's N.P.D. is 3' less. (See the Addenda to the Introduction). No. 3. This star, which was observed with the Transit in 1849, is Bessel o. 161, the R.A. of which is 9° too great. Nos. 6 and 7. Not found in catalogues.
2	Bessel o. 110.....	Oct. 10	9	+ 16.70	27.59	0. 6. 51	1	87.21.28.81	20,046	
3	H. C. 245.....	Sept. 19		+ 16.09	53.11	0. 9. 28	1	92.28.54.54	20,037	
4	Bessel o. 283.....	Oct. 10	7.8	+ 15.85	44.21	0. 16. 38	1	95.19.45.78	20,001	
5	Bessel o. 355.....	10	8.9	+ 16.54	20.88	0.21.32	1	88. 8.22.12	19,963	
6	*.....	Sept. 11		+ 14.47	3.29					
7	—	12	7.8	+ 14.59	3.76	0.22.13	2	82. 1. 4.66	19,960	
8	12 Ceti.....	Jan. 9		- 9.72	50.76	0.22.26	1	94.46.52.31	19,958	
9	β Ceti.....	Nov. 22		+ 8.92	15.96					
10	—	Dec. 11		+ 6.67	17.39	0.36. 6	2	108.48.18.54	19,806	
11	β Ceti R.....	11		+ 6.67	21.65		1	108.48.20.52		
12	B.A.C. 205.....	Oct. 8		+ 15.69	43.43					
13	—	Dec. 2		+ 11.86	47.04	0.37.49	2	95.26.49.32	19,782	
14	Bessel o. 735.....	Nov. 22	9	+ 15.92	16.54	0.42.26	1	83.22.17.68	19,712	
15	20 Ceti.....	Sept. 12		+ 15.25	12.53					
16	—	Oct. 8		+ 15.74	14.60	0.45.24	3	91.57.15.10	19,662	
17	—	Dec. 2		+ 12.79	13.93					
18	ϵ Piscium.....	Jan. 9		- 6.27	47.02	0.55.13	1	82.54.48.16	19,475	
19	ϵ Piscium.....	9		- 7.18	22.99					
20	—	Sept. 12		+ 13.95	20.81	1. 0. 42	2	85. 8.23.04	19,355	
21	Polaris.....	Apr. 23		- 8.00	5.14					
22	—	23		- 8.00	3.75					
23	—	Dec. 11		+ 29.05	4.74	1. 5.18	5	1.29. 4.46	19,246	
24	—	11		+ 29.05	5.74					
25	—	11		+ 29.05	4.91					
26	Polaris R.....	Apr. 23		- 8.00	4.35					
27	—	23		- 8.00	4.58					
28	—	Dec. 11		+ 29.05	4.52		5	1.29. 5.76		
29	—	11		+ 29.05	4.39					
30	—	11		+ 29.05	5.26					
31	Polaris SP.....	Apr. 5		- 2.60	3.14					
32	—	5		- 2.60	4.36					
33	—	12		- 4.75	3.90					
34	—	28		- 9.40	4.61					
35	—	28		- 9.40	4.23					
36	—	May 9		- 12.15	5.99		11	1.29. 5.66		
37	—	9		- 12.15	5.64					
38	—	23		- 15.05	7.41					
39	—	23		- 15.05	9.54					
40	—	23		- 15.05	9.12					
41	—	23		- 15.05	8.13					
42	Polaris SP. R.....	Apr. 5		- 2.60	8.78					
43	—	5		- 2.60	6.39					
44	—	12		- 4.75	7.48					
45	—	28		- 9.40	5.02		7	1.29. 8.02		
46	—	28		- 9.40	7.43					
47	—	May 9		- 12.15	6.46					
48	—	9		- 12.15	6.93					
49	Bessel I. 68.....	Nov. 26	9	+ 13.38	42.24	1. 5.23	1	89.42.43.54	19,244	
50	H. C. 2587.....	26	8	+ 13.12	52.23	1.17.44	1	89.18.53.51	18,912	
51	Bessel I. 356.....	26	8	+ 15.19	26.44	1.21.15	1	80.20.27.57	18,807	
52	Bessel I. 454.....	22	8	+ 13.72	14.07	1.26.22	1	86.38.15.26	18,647	
53	Bessel I. 480.....	26	9.10	+ 14.32	30.41	1.27.43	1	82.57.31.55	18,603	
54	π Piscium.....	25	7	+ 15.29	19.60	1.29.12	1	78.37.20.79	18,555	
55	ν Piscium.....	Oct. 10		+ 14.51	6.54	1.33.41	1	85.16. 7.69	18,402	
56	σ Piscium.....	Nov. 6		+ 14.65	36.97	1.37.32	1	81.35.38.10	18,265	
57	Bessel I. 694.....	22	8	+ 13.78	43.54					
58	—	26	8	+ 13.60	44.14	1.38.26	3	84.12.44.50	18,233	
59	—	Dec. 11	8	+ 12.83	42.41					
60	Bessel I. 732.....	Jan. 9		- 4.68	50.49	1.40.38	1	76.40.51.74	18,152	
61	*.....	Nov. 25	8	+ 13.28	11.03	1.41.48	1	85.20.12.18	18,108	
62	H. C. 3386.....	22	7.8	+ 13.49	50.94	1.43.10	1	84.43.52.08	18,057	
63	Bessel I. 801.....	Dec. 11	8½	+ 13.43	4.72	1.44.46	1	81. 9. 5.85	17,995	
64	Bessel I. 830.....	Nov. 25	7.8	+ 14.19	34.36	1.46. 5	1	80. 6.35.49	17,944	
65	Bessel I. 896.....	25	8	+ 15.03	50.55					
66	—	Dec. 11	8	+ 14.89	51.89	1.50.34	2	74.47.52.55	17,766	
67	50 Cassiopeiæ.....	Nov. 20		+ 19.57	12.67	1.50.49	1	18.18.12.42	17,755	
68	50 Cassiopeiæ R....	20		+ 19.57	9.99		1	18.18.10.98		
69	Bessel I. 948.....	Dec. 11	8¼	+ 14.32	55.58	1.53.13	1	76.25.56.84	-17,657	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1851, as observed.	Approximate R.A. Jan. 1, 1851.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1851.	Annual Variation.	Notes.
				"	"	h. m. s.		" ' "	"	
70	Bessel 1. 1045	Dec. 11	8	+ 13.02	7.23	1. 58. 44	1	80. 14. 8.36	- 17,423	
71	α Arietis	Nov. 20		+ 15.49	37.41					
72	—	22		+ 15.59	36.32					
73	—	25		+ 15.74	36.30	1. 58. 47	4	67. 14. 38.67	17,421	
74	—	26		+ 15.79	37.73					
75	α Arietis R.	22		+ 15.59	40.10					
76	—	25		+ 15.74	39.60					
77	—	26		+ 15.79	40.31					
78	ι Persei	20		+ 17.22	23.42					
79	—	25		+ 18.36	20.90	2. 12. 0	2	34. 50. 22.90	16,819	
80	ι Persei R.	20		+ 17.22	24.70					
81	—	25		+ 18.36	23.45		2	34. 50. 24.08		
82	Bessel 11. 190	Jan. 27	9	- 8.72	21.61	2. 12. 33	1	83. 13. 22.75	16,793	
83	Bessel 11. 196	27	8	- 8.71	4.50	2. 12. 40	1	83. 13. 5.64	16,787	
84	Bessel 11. 271	18	8 $\frac{1}{2}$	- 6.15	33.42	2. 17. 4	1	77. 16. 34.65	16,573	
85	Bessel 11. 319	27	8 $\frac{3}{4}$	- 7.00	58.52	2. 19. 47	1	78. 12. 59.71	16,439	
86	H. C. 4660	27	9	- 5.22	11.41	2. 23. 17	1	73. 7. 12.86	16,261	
87	Bessel 11. 451	27	8.9	- 6.84	39.64	2. 27. 16	1	77. 30. 40.86	16,055	
88	β Arietis	15	6	- 6.44	3.43	2. 28. 31	1	78. 12. 4.63	15,989	
89	H. C. 4925	27	8	- 5.60	57.33	2. 31. 54	1	73. 54. 58.73	15,808	
90	γ Ceti	Dec. 11		+ 9.29	37.56	2. 35. 35	1	87. 23. 38.78	15,608	
91	γ Ceti R.	11		+ 9.29	39.42		1	87. 23. 38.94		
92	α Arietis	Jan. 27	6.7	- 6.14	18.07	2. 36. 21	1	75. 19. 19.38	15,566	
93	β Persei	18		+ 2.34	17.09	2. 58. 29	1	49. 37. 18.66	14,274	
94	β Persei R.	18		+ 2.34	19.06		1	49. 37. 18.23		
95	Bessel 11. 1082	Dec. 8	7 $\frac{1}{2}$	+ 10.20	52.61	3. 0. 51	1	77. 42. 53.83	14,128	
96	H. C. 5967	8	8	+ 10.80	49.47	3. 5. 39	1	72. 14. 50.97	13,827	No. 96. The N.P.D. of H. C. is about 23" less. See No. 118, p. 263.
97	H. C. 6032	Jan. 18	8	- 3.45	23.60	3. 8. 16	1	67. 25. 25.32	13,660	
98	Bessel 111. 173	Dec. 8	7 $\frac{1}{2}$	+ 9.98	36.38	3. 10. 9	1	75. 21. 37.69	13,539	No. 98. The N.P.D. of H. C. is 75°.21'.15" and that of Bessel 75°.21'.27". Has the star proper motion?
99	H. C. 6247	8	8 $\frac{1}{4}$	+ 9.86	43.73	3. 15. 29	1	73. 48. 45.13	13,191	
100	H. C. 6378	8	8 $\frac{1}{4}$	+ 9.63	14.75	3. 19. 44	1	73. 21. 16.18	12,909	
101	H. C. 6525	8	6 $\frac{1}{2}$	+ 9.19	22.00	3. 24. 35	1	73. 54. 23.40	12,581	
102	Bessel 111. 569	Feb. 8	7	- 7.54	40.80	3. 31. 0	1	76. 35. 42.06	12,139	
103	*	8	8.9	- 3.83	37.33	3. 39. 21	1	66. 8. 39.09	11,549	No. 103. The R.A. depends on a Transit observation taken Dec. 27, 1856.
104	B.A.C. 1171	8	7.8	- 3.88	57.00	3. 39. 38	1	66. 6. 58.76	11,529	No. 104. By a Circle observation taken Dec. 27, 1856, the N.P.D. as observed Feb. 8, 1851 was found to be about 20" too small. It has, therefore, been assumed that there was an error of 1' in the micrometer reading.
105	Bessel 111. 783	Nov. 24	10.11	+ 6.82	22.92	3. 40. 34	1	99. 4. 24.62	11,462	
106	H. C. 7230	Feb. 8	8	- 5.17	2.91	3. 47. 24	1	69. 40. 4.58	10,966	
107	H. C. 7362	Jan. 8	7	- 4.55	9.44					
108	—	Feb. 4	8.9	- 4.90	6.74	3. 51. 5	3	69. 7. 9.71	10,695	
109	—	8	8	- 5.00	7.92					
110	A' Tauri	8	4.5	- 4.76	44.93	3. 55. 53	1	68. 19. 46.63	10,337	
111	H. C. 7580	4	9	- 3.44	4.40	3. 57. 40	1	64. 41. 6.19	10,204	
112	H. C. 7661	Jan. 8	6.7	- 5.02	43.40	3. 59. 57	1	66. 31. 45.14	10,031	
113	H. C. 7712	Feb. 4	8 $\frac{1}{4}$	- 4.06	50.24	4. 1. 22	1	66. 24. 51.99	9,923	
114	Bessel 11. 65	Jan. 8		- 3.90	8.72	4. 4. 18	1	75. 45. 10.01	9,700	
115	H. C. 7904	Feb. 4	8 $\frac{1}{4}$	- 4.08	1.99	4. 6. 28	1	66. 18. 3.74	9,533	
116	H. C. 7999	4	7.8	- 4.52	42.71	4. 9. 22	1	67. 33. 44.43	9,309	
117	H. C. 8051	8	8	- 4.27	36.55	4. 10. 50	1	66. 37. 38.29	9,195	
118	H. C. 8058	8	9	- 4.25	21.89	4. 10. 56	1	66. 36. 23.63	9,188	No. 118. The N.P.D. differs about 15" from that of H. C., but is confirmed by an observation on Jan. 7, 1853.
119	γ Tauri	15		- 7.26	9.40		2	74. 44. 11.30	9,158	
120	—	Nov. 10		+ 5.96	10.52	4. 11. 19				
121	γ Tauri R.	Feb. 15		- 7.26	12.64		2	74. 44. 11.17		
122	—	Nov. 10		+ 5.96	10.90					
123	H. C. 8198	Feb. 4	7 $\frac{1}{2}$	- 4.51	11.90	4. 14. 51	1	67. 23. 13.62	8,882	
124	δ Tauri	Nov. 10		+ 5.49	20.49	4. 15. 31	1	72. 54. 21.95	8,829	
125	B.A.C. 1373	Feb. 4	6.7	- 4.99	58.47					
126	—	8	7	- 5.04	59.06	4. 19. 10	3	68. 43. 0.48	8,541	
127	—	15	7	- 5.16	58.85					
128	H. C. 8468	8	8	- 4.47	48.08	4. 22. 16	1	66. 58. 49.81	8,295	
129	H. C. 8541	4	8	- 5.77	17.71	4. 24. 18	1	70. 58. 19.30	8,133	No. 129. The N.P.D. agrees with that of an observation taken Dec. 31, 1853. The N.P.D. of the Hist. Cel. is about 38" too small.
130	Aldebaran	Jan. 14		- 6.27	40.55					
131	—	22		- 6.50	42.73	4. 27. 23	3	73. 47. 42.82	7,886	
132	—	Nov. 10		+ 4.62	40.98					
133	Aldebaran R.	Jan. 14		- 6.27	43.53					
134	—	22		- 6.50	41.13		3	73. 47. 41.73		
135	—	Nov. 10		+ 4.62	42.52					
136	H. C. 8730	Feb. 15	9	- 4.83	53.16	4. 30. 18	1	67. 38. 54.88	7,650	
137	H. C. 8869	Jan. 22	7 $\frac{1}{2}$	- 4.68	23.65					
138	—	Feb. 15	8	- 4.74	24.43	4. 34. 57	2	67. 20. 25.76	- 7,273	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1851, as observed.	Approximate R.A. Jan. 1, 1851.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1851.	Annual Variation.	Notes.
				"	"	h. m. s.		° ' "	"	
139	H. C. 8917.....	Feb. 4	9	- 3.69	23.76	4. 37. 3	1	64. 14. 25.55	- 7.101	
140	H. C. 9008.....	15	8	- 5.32	7.20	4. 39. 53	1	68. 57. 8.88	6.869	
141	<i>i</i> Tauri.....	4	6.7	- 6.04	5.03	4. 42. 40	1	71. 25. 6.59	6.639	
142	<i>o</i> Orionis.....	Dec. 8		+ 3.10	6.97	4. 44. 6	1	76. 0. 8.25	6.521	
143	H. C. 9084.....	Feb. 15	8.9	- 4.63	10.08	4. 44. 35	1	66. 54. 11.81	6.481	
144	<i>i</i> Aurigæ.....	Jan. 22		- 2.14	28.33	4. 47. 18	1	57. 4. 30.08	6.255	
145	<i>i</i> Aurigæ R.....	22		- 2.14	30.37		1	57. 4. 29.36		
146	H. C. 9250.....	Feb. 4	9 $\frac{1}{4}$	- 3.37	23.56	4. 48. 22	1	62. 51. 25.35	6.167	
147	H. C. 9331.....	15	9	- 4.52	46.64	4. 50. 31	1	66. 28. 48.39	5.987	
148	H. C. 9411.....	Jan. 22	8.9	- 6.82	49.30					
149	—	Feb. 4	8.9	- 7.07	48.84	4. 52. 49	2	74. 28. 50.43	5.795	
150	11 Orionis.....	Dec. 8	5 $\frac{1}{2}$	+ 2.21	28.17	4. 56. 3	1	74. 48. 29.50	5.524	
151	11 Orionis R.....	8	5 $\frac{1}{2}$	+ 2.21	29.86		1	74. 48. 29.27		
152	H. C. 9517.....	Jan. 8	7	- 6.05	28.88					
153	—	Feb. 15	8 $\frac{1}{4}$	- 6.40	28.18	4. 56. 9	2	71. 57. 30.05	5.515	
154	*.....	Jan. 22	9	- 6.20	24.41	4. 57. 21	1	72. 1. 25.93	5.414	No. 154. The R.A. is inferred from a Transit observation Dec. 27, 1856.
155	H. C. 9567.....	Feb. 4	6.7	- 4.99	42.20	4. 57. 44	1	67. 41. 43.92	5.382	
156	B.A.C. 1577.....	15	8.9	- 3.04	35.48	4. 59. 14	1	61. 55. 37.27	5.255	
157	H. C. 9704.....	4	8 $\frac{1}{4}$	- 3.05	53.28	5. 1. 55	1	61. 11. 55.07	5.028	
158	H. C. 9786.....	15		- 3.85	38.97	5. 5. 19	1	64. 15. 40.76	4.740	No. 158. The N.P.D. is confirmed by an observation Feb. 17, 1853. That of H. C. is 2' smaller.
159	Capella.....	Dec. 8		+ 0.69	31.07	5. 5. 41	1	44. 9. 32.39	4.709	
160	Capella R.....	8		+ 0.69	35.68		1	44. 9. 35.10		
161	Rigel.....	Jan. 18		- 12.16	38.79					
162	—	Feb. 26		- 15.29	39.29					
163	—	Nov. 10		+ 5.80	37.37	5. 7. 23	5	98. 22. 40.01	4.564	
164	—	20		+ 4.27	37.76					
165	—	Dec. 11		+ 0.77	38.46					
166	Rigel R.....	Jan. 18		- 12.16	41.02					
167	—	Nov. 10		+ 5.80	37.71		3	98. 22. 38.84		
168	—	Dec. 11		+ 0.77	40.62					
169	H. C. 9854.....	Jan. 9	7 $\frac{3}{4}$	- 6.51	60.94					
170	—	Feb. 4	8	- 6.93	58.89	5. 8. 31	2	73. 49. 1.32	4.467	
171	H. C. 9872.....	Jan. 22	9	- 3.84	23.65	5. 9. 21	1	62. 4. 25.44	4.396	
172	H. C. 10007.....	22	8 $\frac{3}{4}$	- 3.66	29.06					
173	—	Feb. 4	8.9	- 3.16	27.96	5. 13. 33	2	61. 3. 30.30	4.037	
174	H. C. 10080.....	Jan. 9	8 $\frac{1}{4}$	- 5.91	40.36					
175	—	18	9	- 5.90	40.96	5. 15. 8	2	70. 8. 42.31	3.901	
176	β Tauri.....	Feb. 8		- 3.27	23.25					
177	—	15		- 3.11	22.60					
178	—	26		- 2.95	21.51	5. 16. 52	4	61. 31. 24.19	3.752	
179	—	Dec. 8		+ 0.14	22.25					
180	β Tauri R.....	Feb. 8		- 3.27	25.06					
181	—	15		- 3.11	23.50					
182	—	26		- 2.95	22.14		4	61. 31. 23.31		
183	—	Dec. 8		+ 0.14	26.75					
184	H. C. 10156.....	Jan. 22	8 $\frac{1}{4}$	- 4.10	26.92	5. 17. 40	1	62. 31. 28.71	3.683	
185	H. C. 10252.....	9	7 $\frac{1}{2}$	- 6.57	1.79	5. 20. 14	1	73. 42. 3.20	3.462	
186	H. C. 10304.....	Feb. 15		- 3.37	54.34	5. 22. 1	1	62. 20. 56.13	3.309	
187	H. C. 10390.....	8	8	- 4.51	50.74	5. 24. 22	1	65. 28. 52.52	3.106	
188	H. C. 10485.....	15	8.9	- 6.29	38.75	5. 27. 0	1	71. 20. 40.32	2.878	
189	H. C. 10528.....	8	8.9	- 4.07	41.90	5. 28. 24	1	63. 52. 43.69	2.756	
190	H. C. 10633.....	15	8 $\frac{3}{4}$	- 3.44	58.11	5. 31. 18	1	62. 17. 59.90	2.505	
191	H. C. 10679.....	8	8 $\frac{3}{4}$	- 4.11	21.12	5. 32. 36	1	63. 49. 22.91	2.392	
192	H. C. 10684.....	15	8 $\frac{3}{4}$	- 4.44	36.71	5. 32. 41	1	62. 18. 38.50	2.385	
193	H. C. 10686.....	8	8 $\frac{1}{2}$	- 4.11	1.71	5. 32. 42	1	63. 48. 3.50	2.385	
194	H. C. 10866.....	15	8	- 6.28	14.34	5. 37. 23	1	71. 12. 15.92	1.976	
195	H. C. 10917.....	8	8.9	- 3.84	32.89	5. 38. 58	1	62. 41. 34.68	1.838	
196	H. C. 11036.....	15	9.10	- 4.32	5.58	5. 41. 51	1	64. 49. 7.37	1.587	
197	H. C. 11349.....	15	9	- 5.20	1.80	5. 52. 11	1	67. 28. 3.52	0.684	
198	H. C. 11466.....	15	9	- 6.39	18.13	5. 55. 36	1	71. 18. 19.70	- 0.385	
199	μ Geminorum.....	Mar. 11		- 4.78	53.30	6. 13. 57	1	67. 24. 55.02	+ 1.220	
200	ν Geminorum.....	11		- 5.55	53.40	6. 20. 6	1	69. 41. 55.07	1.757	
201	H. C. 12650.....	11	8 $\frac{1}{4}$	- 5.88	11.22	6. 28. 15	1	70. 43. 12.83	2.466	
202	B.A.C. 2184.....	11	7.8	- 6.81	5.41	6. 32. 46	1	73. 28. 6.83	2.857	
203	H. C. 12871.....	Feb. 24	8.9	- 6.56	33.57	6. 34. 25	1	72. 0. 35.09	3.000	
204	H. C. 12990.....	Jan. 27	8	- 5.59	55.43	6. 37. 51	1	63. 32. 57.22	3.297	
205	Sirius.....	Feb. 8		- 13.96	52.84					
206	—	11		- 14.39	52.33					
207	—	28		- 16.19	52.63	6. 38. 35	4	106. 30. 54.33	+ 3.360	
208	—	Mar. 11		- 17.09	52.12					

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				"	"	h. m. s.		° ' "	"	
209	Sirius R.	Feb. 8		- 13.96	56.74		2	106.30.56.21		
210		28		- 16.19	57.90					
211	H. C. 13194.....	Jan. 27	8	- 5.55	38.68	6.43.42	2	64.3.41.24	+ 3,801	
212		Feb. 24	8½	- 4.25	40.21					
213	B.A.C. 2265.....	Jan. 27	7.8	- 6.89	26.17					
214		Feb. 24	8	- 6.60	27.01	6.47.36	3	72.4.28.60	4,135	
215		Mar. 14	8	- 6.23	23.06					
216	B.A.C. 2280.....	Jan. 14	8½	- 6.82	32.50	6.51.17	1	73.51.33.90	4,450	
217	H. C. 13611.....	Feb. 24	8½	- 5.54	29.02	6.54.42	1	68.20.30.72	4,471	
218	ζ Geminorum.....	Jan. 27		- 6.48	53.85					
219		Feb. 11		- 6.17	54.62	6.55.16	3	69.12.56.71	4,789	
220		Apr. 9		- 4.56	56.63					
221	ζ Geminorum R....	Jan. 27		- 6.48	59.18		2	69.12.57.69		
222		Feb. 11		- 6.17	58.08					
223	H. C. 13681.....	Mar. 14	8½	- 2.68	15.93	6.56.49	1	61.35.17.72	4,921	
224	H. C. 13700.....	14	9	- 2.67	46.25	6.57.23	1	61.33.48.04	4,969	
225	H. C. 13758.....	Jan. 27	8	- 7.13	16.92	6.58.42	1	73.57.18.31	5,031	
226	H. C. 13931.....	27	9	- 5.53	19.53	7.3.48	1	61.58.21.32	5,511	
227	δ Geminorum.....	Apr. 9		- 3.85	50.95	7.11.13	1	67.44.52.66	6,132	
228	H. C. 14393.....	Jan. 23	8½	- 6.65	55.01	7.16.47	1	69.12.56.69	6,594	No. 228. This is Σ 1083. sp.
229	H. C. 14556.....	23	8	- 6.75	33.03	7.21.38	1	69.52.34.69	6,993	
230	H. C. 14771.....	23	8.9	- 6.71	37.49		2	69.10.38.79	7,460	
231		24	9	- 6.71	36.74	7.27.21				
232	H. C. 14794.....	23	8.9	- 6.73	10.78		2	69.11.12.34	7,523	
233		24	8½	- 6.72	10.53					
234	Pollux.....	9		- 6.81	4.57	7.36.11	1	61.37.6.36	8,171	
235	Pollux R.....	9		- 6.81	5.76		1	61.37.4.71		
236	82 Geminorum....	24	7.8	- 6.59	38.94	7.39.39	1	66.29.40.69	8,448	
237	H. C. 15325.....	22	8.9	- 6.50	49.32		2	63.2.50.55	8,840	
238		24	8.9	- 6.40	48.19	7.44.37				
239	1 Cancri.....	24	7	- 7.07	56.08	7.48.32	1	73.48.57.48	9,146	
240	B.A.C. 2658.....	22	8	- 6.92	62.25		2	71.21.2.34	9,423	
241		24	8½	- 6.95	59.26	7.52.6				
242	B.A.C. 2683.....	22	7½	- 6.82	27.12	7.56.8	1	70.44.28.73	9,733	
243	H. C. 15834.....	24	9	- 7.07	11.83	7.58.33	1	74.25.13.19	9,917	
244	12 Cancri.....	22	7	- 7.03	45.47		2	75.55.47.12	10,055	
245		Mar. 11	8	- 7.25	46.20	8.0.22				
246	B.A.C. 2748.....	Jan. 24	7½	- 7.06	18.06	8.4.2	1	75.33.19.36	10,331	
247	H. C. 16099.....	22	9	- 6.89	17.26		2	68.28.18.92	10,493	
248		Mar. 11	8½	- 5.16	17.21	8.6.12				
249	H. C. 16172.....	Jan. 24	9	- 6.88	46.17	8.8.33	1	68.21.47.87	10,668	
250	H. C. 16258.....	Mar. 11	9	- 5.12	47.94	8.10.41	1	68.16.49.64	10,826	
251	Bessel VIII. 415...	11	9½	- 7.21	1.35	8.16.2	1	76.1.2.63	11,217	No. 251. Bessel's N.P.D. is 30'' too great. See the observation of April 5, 1850.
252	H. C. 16554.....	6	8½	- 4.96	44.40		2	66.21.44.46	11,405	
253		14	9	- 4.43	41.02	8.18.38				
254	H. C. 16624.....	11	9½	- 6.45	1.64	8.20.23	1	73.11.3.08	11,530	
255	H. C. 16756.....	11	9	- 6.71	7.19		2	74.10.7.40	11,782	
256		14	9.10	- 6.59	4.85	8.23.55				
257	*.....	11	8.9	- 6.71	25.73	8.24.22	1	74.13.27.11	11,814	
258	35 Cancri.....	6	7½	- 5.87	3.26	8.26.45	1	69.54.4.92	11,981	No. 257. This is Bessel z. 273, 8h. 22m. 50s.
259	H. C. 16964.....	14	8	- 4.33	23.53	8.29.59	1	65.47.25.30	12,207	
260	H. C. 17017.....	6	8.9	- 7.40	57.83	8.31.3	1	76.30.59.09	12,281	
261	δ Cancri.....	14		- 5.82	4.98	8.36.13	1	71.18.6.55	12,635	
262	H. C. 17249.....	6	8	- 5.66	34.02		2	68.50.35.86	12,739	
263		11	8	- 5.35	34.34	8.37.45				
264	Bessel VIII. 1072...	6	8.9	- 7.52	54.77	8.41.24	1	77.16.56.00	12,984	
265	H. C. 17513.....	6	9	- 5.32	5.55	8.45.25	1	67.8.7.28	13,250	
266	Bessel VIII. 1264...	18	8½	- 7.15	29.40	8.48.54	1	77.12.30.63	13,478	
267	Bessel VIII. 1299...	6	8	- 7.73	56.53	8.50.14	1	78.34.57.72	13,564	
268	α Cancri.....	14		- 7.35	7.50	8.50.20	1	77.34.8.72	13,570	
269	α Cancri R.....	14		- 7.35	7.91		1	77.34.7.43		
270	H. C. 17863.....	18	8.9	- 5.45	31.83	8.55.26	1	70.43.33.44	13,895	
271	Bessel VIII. 1441...	6	9	- 7.42	36.19	8.56.21	1	77.11.37.42	13,953	
272	H. C. 17999.....	18	8	- 6.46	29.34	8.59.53	1	74.41.30.68	14,173	
273	π¹ Cancri.....	6	7.8	- 6.86	25.38		3	74.24.26.47	14,434	
274		18	7.8	- 6.38	24.73	9.4.8				
275		28		- 5.87	25.21		2	64.44.38.06	+ 14,673	
276	H. C. 18259.....	20		- 3.79	35.68	9.8.6				
277		21	9	- 3.69	36.86					

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				"	"	h. m. s.		° ' "	"	
278	H. C. 18320.....	Mar. 6	8 $\frac{1}{4}$	- 6.15	49.50	9. 9. 54	1	70. 35. 51.12	+ 14,780	
279	H. C. 18508.....	11	8	- 6.03	12.55					
280	—	18	8	- 5.60	12.53	9. 16. 11	3	71. 13. 14.96	15,146	
281	—	28	7.8	- 4.94	15.06					
282	α Hydræ.....	6		- 10.25	54.65	9. 20. 16	1	98. 0. 56.32	15,378	
283	Bessel ix. 437.....	18	7.8	- 6.92	5.28	9. 20. 29	1	76. 58. 6.52	15,390	
284	*.....	Apr. 5	9	- 2.68	56.24					
285	—	12	8.9	- 1.82	55.87	9. 22. 56	2	64. 55. 57.85	15,526	
286	Bessel ix. 493.....	Mar. 28	8 $\frac{1}{2}$	- 7.08	33.66	9. 23. 1	1	79. 11. 34.82	15,531	No. 286. The north-following star, viz. Bessel ix. 497, noticed on the same day, is H. C. 18702, the N.P.D. of which is 10' too great.
287	ξ Leonis.....	Apr. 11		- 6.10	33.28	9. 23. 55	1	78. 2. 34.49	15,581	
288	Bessel ix. 533.....	Mar. 18	9	- 7.05	35.00					
289	—	20	9	- 6.98	34.75	9. 24. 34	2	77. 26. 36.10	15,616	
290	Bessel ix. 542.....	18	9.10	- 7.05	5.18					
291	—	20	9 $\frac{1}{4}$	- 6.98	4.18	9. 24. 56	2	77. 38. 5.90	15,637	
292	H. C. 18861.....	28	10	- 4.71	(36.78)					No. 292. Probably too faint for accurate bisection.
293	—	Apr. 12	8 $\frac{1}{4}$	- 3.58	30.15	9. 28. 7	1	70. 24. 31.78	15,810	
294	B.A.C. 3299.....	Mar. 18	8	- 6.67	5.59	9. 31. 12	1	76. 1. 6.87	15,974	
295	Bessel ix. 717.....	20	8 $\frac{1}{4}$	- 7.44	2.89	9. 32. 34	1	79. 54. 4.02	16,046	
296	Bessel ix. 741.....	20	8 $\frac{1}{4}$	- 7.42	36.24	9. 33. 32	1	79. 51. 37.37	16,097	
297	Bessel ix. 782.....	18	9	- 6.57	28.83	9. 35. 35	1	75. 35. 30.13	16,203	
298	Bessel ix. 784.....	18	8 $\frac{1}{4}$	- 6.55	4.55	9. 35. 39	1	75. 31. 5.85	16,207	
299	Bessel ix. 872.....	20	7 $\frac{3}{4}$	- 6.51	3.01					
300	—	Apr. 12	7 $\frac{1}{2}$	- 5.22	2.46	9. 39. 45	2	75. 50. 4.03	16,415	
301	Bessel ix. 1011.....	12	9	- 7.08	46.67	9. 46. 47	1	82. 12. 47.80	16,761	
302	H. C. 19503.....	12	8	- 4.60	11.59	9. 50. 6	1	74. 4. 12.97	16,918	
303	Bessel ix. 1118.....	12	8	- 7.55	1.84	9. 51. 55	1	84. 4. 2.98	17,003	
304	Bessel ix. 1266.....	Mar. 26	7 $\frac{1}{2}$	- 7.57	4.86	9. 58. 46	1	82. 22. 5.99	17,313	
305	Regulus.....	Feb. 8		- 6.85	22.63					
306	—	Apr. 11		- 5.55	21.73					
307	—	12		- 5.49	22.74	10. 0. 26	5	77. 18. 23.38	17,387	
308	—	May 8		- 3.76	21.66					
309	—	9		- 3.69	22.01					
310	Regulus R.....	Feb. 8		- 6.85	23.01					
311	—	Apr. 11		- 5.55	23.62		3	77. 18. 22.49		
312	—	12		- 5.49	22.32					
313	19 Sextantis.....	Mar. 26	6.7	- 7.96	2.84	10. 5. 3	1	84. 39. 3.98	17,584	
314	Bessel x. 134.....	26	9	- 7.42	31.04	10. 8. 23	1	82. 7. 32.17	17,723	
315	γ Leonis.....	14		- 5.73	22.48	10. 11. 45	1	69. 24. 24.15	17,859	
316	ρ Leonis.....	Apr. 11		- 6.08	39.42					
317	—	12		- 6.03	38.55	10. 24. 58	2	79. 55. 40.11	18,355	
318	Bessel x. 475.....	5	9	- 5.37	0.95	10. 27. 1	1	75. 37. 2.25	18,426	
319	Bessel x. 576.....	5	9	- 7.85	5.18	10. 32. 14	1	86. 43. 6.38	18,602	
320	Bessel x. 664.....	4	8 $\frac{1}{2}$	- 7.40	48.97	10. 37. 17	1	84. 52. 50.11	18,762	
321	H. C. 20732.....	5	9	- 6.58	31.59					
322	—	12	8 $\frac{1}{2}$	- 6.23	34.84	10. 37. 38	2	81. 13. 34.34	18,773	
323	H. C. 20838.....	5	7 $\frac{3}{4}$	- 7.51	19.35	10. 41. 42	1	85. 46. 20.51	18,895	
324	Bessel x. 776.....	4	7 $\frac{3}{4}$	- 7.08	30.96					
325	—	12	8 $\frac{1}{2}$	- 6.77	30.37	10. 43. 9	3	83. 37. 31.81	18,937	
326	—	19	8	- 6.43	20.68					
327	Bessel x. 846.....	5		- 7.59	56.93	10. 46. 11	1	86. 32. 58.12	19,023	
328	H. C. 21015.....	12		- 6.21	33.00	10. 48. 11	1	81. 31. 34.13	19,078	
329	56 Leonis.....	4	5.6	- 6.88	13.62	10. 48. 17	1	83. 1. 14.76	19,081	
330	Bessel x. 910.....	19	9	- 7.15	49.46	10. 50. 8	1	86. 37. 50.65	19,130	
331	Bessel x. 964.....	4	8	- 6.99	3.20	10. 53. 21	1	83. 52. 4.34	19,212	
332	H. C. 21226.....	28	7.8	- 5.87	23.99	10. 56. 36	1	83. 58. 25.13	19,292	
333	χ Leonis.....	May 9		- 4.51	31.74	10. 57. 21	1	81. 51. 32.87	19,310	
334	Bessel x. 1058.....	Apr. 4	8	- 7.46	50.16	10. 58. 36	1	86. 47. 51.36	19,339	
335	Bessel xi. 18.....	28	7 $\frac{3}{4}$	- 7.76	14.33	11. 2. 26	1	91. 0. 15.69	19,425	
336	Bessel xi. 142.....	4		- 7.85	30.42	11. 9. 8	1	90. 15. 31.74	19,563	
337	Bessel xi. 186.....	17	10	- 7.07	59.87	11. 11. 27	1	87. 29. 1.09	19,606	Nos. 337 and 341. Circumstances unfavorable for estimation of magnitude.
338	σ Leonis.....	12		- 6.30	15.17					
339	—	May 9		- 4.69	16.08	11. 13. 27	2	83. 9. 16.77	19,642	
340	Bessel xi. 312.....	Apr. 17	9	- 7.78	22.37					
341	—	19	10	- 7.74	17.94	11. 18. 15	2	91. 18. 21.54	19,722	
342	τ Leonis.....	12		- 6.85	22.81					
343	—	15	6	- 6.75	23.94	11. 20. 17	2	86. 19. 24.56	19,754	
344	τ Leonis R.....	12		- 6.85	25.81		1	86. 19. 25.37		
345	Bessel xi. 368.....	Mar. 20	9	- 7.11	55.01	11. 21. 7	1	86. 19. 56.19	19,767	
346	λ Draconis.....	May 19		+ 14.34	49.15	11. 22. 30	1	19. 50. 48.95	+ 19,787	
347	λ Draconis R.....	19		+ 14.34	47.97		1	19. 50. 48.91		

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1851, as observed.	Approximate R.A. Jan. 1, 1851.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1851.	Annual Variation.	Notes.
				"	"	h. m. s.		"	"	
348	H. C. 21911	Apr. 17	7 $\frac{1}{2}$	- 7.29	8.44	11.24.40	1	89.35.9,73	+ 19,817	
349	Bessel xi. 445.....	25	8 $\frac{1}{2}$	- 5.48	53.19	11.25.49	1	83.18.54,33	19,832	
350	Bessel xi. 479.....	Mar. 20	9	- 6.71	23,63	11.27.40	1	81.17.24,76	19,855	
351	B.A.C. 3962	Apr. 25	6 $\frac{1}{2}$	- 6.56	19,84	11.32.46	1	88.13.21,09	19,913	
352	Bessel xi. 592.....	Mar. 20	9	- 7.00	23,05	11.33.49	1	88.13.24,30	19,924	
353	3 Draconis.....	Apr. 28		+ 10.20	49,41	11.34.7	1	22.25.49,33	19,927	
354	3 Draconis R.....	28		+ 10.20	47,51		1	22.25.48,33		
355	Bessel xi. 654.....	25	8	- 6.17	8,92	11.37.23	1	86.49.10,12	19,957	
356	Bessel xi. 688.....	Mar. 20	8.9	- 6.77	47,75					
357	-----	Apr. 17	8	- 5.97	46,75	11.39.23	3	84.16.48,83	19,973	
358	-----	28	8 $\frac{1}{2}$	- 5.36	48,57					
359	β Leonis.....	May 19		- 0.80	43,04	11.41.27	1	74.35.44,39	19,989	
360	β Leonis R.....	19		- 0.80	41,00		1	74.35.40,39	19,989	
361	B.A.C. 3996.....	Apr. 25	6 $\frac{1}{2}$	- 5.43	54,98	11.41.29	1	83.58.56,12	19,989	
362	Bessel xi. 737.....	Mar. 20	8.9	- 6.74	21,30	11.42.32	1	84.15.22,44	19,996	
363	Bessel xi. 779.....	Apr. 17	9	- 6.23	6,60					
364	-----	25	8	- 5.85	8,17	11.44.57	2	86.1.8,55	20,011	
365	-----	28	10	- 5.70	(14,25)					
366	B.A.C. 4030.....	Mar. 20	8	- 6.84	17,55	11.47.50	1	94.18.19,08	20,026	No. 365. The magnitude makes it probable that this was not the right star.
367	Bessel xi. 895.....	Apr. 28	7 $\frac{3}{4}$	- 6.77	16,22	11.51.56	1	91.5.17,58	20,042	
368	Bessel xi. 920.....	17	9	- 6.35	57,26					
369	-----	May 9	10	- 5.28	56,61	11.53.22	2	87.17.58,16	20,046	
370	Bessel xi. 940.....	Apr. 28	8 $\frac{1}{4}$	- 5.30	55,47	11.54.47	1	84.56.56,61	20,049	
371	H. C. 22755.....	May 14	7	- 4.08	23,42	11.59.55	1	84.39.24,56	20,054	
372	Bessel xi. 1032....	Apr. 19	8 $\frac{3}{4}$	- 6.86	38,23	12.0.42	1	91.15.39,60	20,054	
373	Bessel xii. 44.....	May 9	8	- 7.13	31,80	12.3.43	1	95.5.33,36	20,052	
374	Bessel xii. 92.....	Apr. 19	9	- 6.65	31,95					
375	-----	May 9	9	- 5.96	33,12	12.6.31	2	90.48.33,89	20,047	
376	δ Ursæ Majoris....	14		+ 10.36	19,28	12.8.2	1	32.8.19,82	20,042	No. 375. Bessel xii. 93 was estimated on the same day at Mag. 8 $\frac{1}{2}$.
377	δ Ursæ Majoris R..	14		+ 10.36	20,33		1	32.8.20,53		
378	B.A.C. 4134.....	Apr. 19	7 $\frac{1}{2}$	- 6.94	35,23					
379	-----	28	6.7	- 6.78	34,04	12.10.31	3	93.7.36,48	20,033	
380	-----	May 6	7 $\frac{1}{2}$	- 6.58	35,79					
381	B.A.C. 4135.....	Apr. 19		- 6.94	15,92					
382	-----	28	6.7	- 6.78	13,90	12.10.31	3	93.7.16,80	20,033	
383	-----	May 6		- 6.58	16,20					
384	Bessel xii. 208.....	Apr. 15	8	- 6.90	52,93					
385	-----	May 9	8	- 6.41	51,18	12.13.2	3	93.9.52,90	20,022	
386	-----	14	8	- 6.22	50,21					
387	Bessel xii. 249.....	Apr. 19	9	- 7.09	10,96					
388	-----	28	7 $\frac{3}{4}$	- 7.04	13,28	12.15.17	3	94.57.14,04	20,010	
389	-----	May 19	8 $\frac{1}{2}$	- 6.46	13,21					No. 389. The magnitude estimated in day-light.
390	Bessel xii. 272.....	Apr. 15	8	- 7.00	17,18					
391	-----	May 9	8 $\frac{1}{4}$	- 6.72	17,61	12.17.6	3	94.49.18,72	19,999	
392	-----	14	8 $\frac{1}{2}$	- 6.57	16,72					
393	*.....	Apr. 19	9	- 7.03	51,64					
394	-----	28	9	- 6.52	57,10	12.18.49	2	95.12.55,94	19,987	
395	Bessel xii. 308.....	19	8 $\frac{1}{2}$	- 7.03	9,32					
396	-----	28	8	- 6.52	10,71	12.19.19	3	95.14.11,90	19,983	
397	-----	May 6	8	- 6.84	10,95					
398	B.A.C. 4200.....	Apr. 15	7	- 6.81	22,87	12.20.13	1	93.47.24,37	19,977	
399	Bessel xii. 356....	May 14	8 $\frac{1}{4}$	- 4.66	19,21	12.21.18	2	88.1.21,38	19,968	
400	-----	19	8 $\frac{1}{2}$	- 4.33	21,06					No. 400. The magnitude estimated in day-light.
401	Bessel xii. 370.....	Apr. 28	7	- 6.90	45,39	12.22.23	1	95.11.46,96	19,959	
402	Bessel xii. 414.....	25	8	- 6.56	58,42					
403	-----	May 6	8	- 6.29	58,02					
404	-----	14	8 $\frac{1}{4}$	- 5.98	55,91	12.24.35	4	93.19.59,22	19,939	
405	-----	19		- 5.77	58,62					
406	Bessel xii. 474.....	Apr. 25	8 $\frac{1}{2}$	- 7.25	7,25					
407	-----	28	8	- 7.26	4,48					
408	-----	May 8	8 $\frac{1}{2}$	- 7.23	6,33	12.28.11	4	98.14.7,69	19,903	
409	-----	19	8 $\frac{1}{2}$	- 7.02	5,98					
410	Bessel xii. 490....	6	7.8	- 5.77	39,59	12.29.26	1	91.29.40,98	19,889	No. 410. This is H. C. 23584. H. C. 23583 appears to be the same star, with an error in N.P.D. of 8'.
411	Bessel xii. 561.....	Apr. 24	8 $\frac{3}{4}$	- 7.07	25,70					
412	-----	25	8 $\frac{1}{4}$	- 7.05	27,08					
413	-----	28	8	- 7.09	25,31					
414	-----	May 8	8 $\frac{1}{2}$	- 7.00	27,47	12.33.36	6	97.57.28,11	+ 19,840	
415	-----	9		- 7.00	27,00					
416	-----	14	8 $\frac{1}{2}$	- 6.91	26,05					

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1851, as observed.	Approximate R.A. Jan. 1, 1851.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1851.	Annual Variation.	Notes.
				"	"	h. m. s.		° ' "	"	
417	γ Virginis.....	Mar. 18		- 5.81	53.48	12.34. 7	1	90.37. 54.82	+ 19,833	No. 417. The N.P.D. applies to the point equidistant from the two stars.
418	Bessel XII. 569.....	May 17	9	- 5.27	0.19	12.34. 11	1	91.56. 1.60	19,832	
419	Bessel XII. 621.....	14		- 7.42	6.42	12.36. 40	1	100.30. 8.17	19,798	
420	Bessel XII. 639.....	8		- 6.87	1.99					
421	_____	9	8 $\frac{3}{4}$	- 6.86	2.73					
422	_____	13	9	- 6.78	1.73	12.37. 47	4	97.52. 3.73	19,782	No. 425. On the same day it was found that the Declination of Bessel XII. 694, in Weisse's Catalogue should be +. The annual and secular variations are calculated for a north declination.
423	_____	19	8 $\frac{1}{2}$	- 6.64	1.80					
424	Bessel XII. 677.....	17	9	- 5.94	33.26	12.39. 51	1	95. 4. 34.82	19,752	
425	Bessel XII. 718.....	Apr. 24		- 6.54	57.84	12.42. 1	1	96. 3. 59.44	19,718	
426	Bessel XII. 729.....	28	8	- 5.69	44.13					
427	_____	May 9	9	- 5.23	42.66					
428	_____	13	9	- 5.04	42.87	12.42. 45	5	91. 0. 44.89	19,707	
429	_____	15	9 $\frac{1}{2}$	- 4.93	42.14					
430	_____	19	8 $\frac{1}{2}$	- 4.72	45.86					
431	Bessel XII. 796.....	Apr. 28	8	- 6.50	57.47					
432	_____	May 9	8	- 6.38	56.99					No. 434. Differs too much from the other three.
433	_____	13	8 $\frac{1}{2}$	- 6.29	57.64	12.46. 44	3	96.47. 58.99	19,639	
434	_____	19	8	- 6.12	(50.46)					
435	Bessel XII. 802.....	Apr. 28	9	- 6.49	22.77	12.47. 4	2	96.48. 25.08	19,633	
436	_____	May 19	9	- 6.11	24.15					
437	ϵ Ursæ Majoris	14		+ 9.08	47.66	12.47. 28	1	33.13. 48.28	19,625	No. 450. The other observation is thought to be trust-worthy. Nos. 451—453. This appears to be a very faint star.
438	ϵ Ursæ Majoris R..	14		+ 9.08	47.89		1	33.13. 48.01	19,625	
439	Bessel XII. 820.....	8	7 $\frac{1}{2}$	- 5.54	31.40	12.48. 2	1	92.44. 32.85	19,616	
440	δ Virginis.....	Mar. 18		- 5.93	30.68	12.48. 6	1	85.47. 31.84	19,614	
441	Bessel XII. 867.....	May 9	8	- 4.90	43.40	12.50. 50	1	90.14. 44.72	19,563	
442	Bessel XII. 882.....	8	7 $\frac{3}{4}$	- 5.72	1.68					
443	_____	13	8	- 5.55	2.71	12.51. 42	3	94. 6. 3.33	19,547	
444	_____	19		- 5.31	1.05					
445	46 Virginis.....	Apr. 28	6.7	- 5.71	57.48					
446	_____	May 6	5	- 5.46	56.60	12.52. 56	3	92.33. 58.39	19,522	
447	_____	14	7.8	- 5.14	56.76					No. 464. Bessel XIII. 131 has nearly the same N.P.D., but greater R.A. by 12". There is no such star. See Zodiacal observations of 1849 No. 264.
448	Bessel XII. 939.....	8	8 $\frac{3}{4}$	- 5.45	50.31	12.54. 47	1	93.11. 51.78	19,484	
449	Bessel XII. 953.....	8	8 $\frac{3}{4}$	- 5.44	33.03					
450	_____	17	10	- 5.08	(26.34)	12.55. 20	1	93.12. 34.50	19,473	
451	Bessel XII. 976.....	14	10 $\frac{1}{2}$	- 4.70	46.28					
452	_____	15	9 $\frac{1}{2}$	- 4.65	41.69	12.56. 37	3	91. 4. 47.00	19,446	
453	_____	19	10	- 4.43	48.96					
454	g Virginis.....	6	8	- 6.59	32.75	13. 0. 6	2	99.56. 35.87	19,369	
455	_____	15	7	- 6.54	29.51					
456	Bessel XII. 1059....	8	8	- 7.02	38.42	13. 1. 7	2	102.38. 40.15	19,346	
457	_____	19	7 $\frac{1}{2}$	- 7.06	38.29					No. 464. Bessel XIII. 131 has nearly the same N.P.D., but greater R.A. by 12". There is no such star. See Zodiacal observations of 1849 No. 264.
458	Bessel XIII. 18.....	14	9 $\frac{1}{4}$	- 5.43	28.76	13. 2. 16	2	94.58. 30.99	19,319	
459	_____	17	9 $\frac{1}{2}$	- 5.33	30.10					
460	Bessel XIII. 55.....	15	8 $\frac{3}{4}$	- 5.97	55.87	13. 4. 26	1	93.18. 57.35	19,267	
461	Bessel XIII. 76.....	8	8	- 6.87	36.69					
462	_____	14	7 $\frac{1}{2}$	- 6.92	37.06	13. 5. 32	3	102.40. 38.34	19,240	
463	_____	19	7 $\frac{1}{4}$	- 7.91	35.89					
464	H. C. 24610.....	8	8	- 5.46	43.68	13. 8. 20	1	94.52. 45.24	19,169	
465	H. C. 24624.....	8		- 5.41	58.89					
466	_____	15	7 $\frac{3}{4}$	- 5.18	57.68	13. 8. 57	3	94.47. 0.17	19,154	
467	_____	19	7 $\frac{1}{2}$	- 5.02	59.30					No. 464. Bessel XIII. 131 has nearly the same N.P.D., but greater R.A. by 12". There is no such star. See Zodiacal observations of 1849 No. 264.
468	H. C. 24697.....	13	8 $\frac{1}{2}$	- 6.53	18.42	13.11. 19	1	101.39. 20.19	19,091	
469	Bessel XIII. 206....	15	8	- 6.03	24.26	13.12. 39	2	99.24. 26.25	19,055	
470	_____	19	7 $\frac{1}{2}$	- 5.96	24.79					
471	Bessel XIII. 249....	13		- 6.59	57.91	13.15. 35	1	102.52. 59.71	18,974	
472	Bessel XIII. 252....	13	8 $\frac{1}{4}$	- 6.58	6.13	13.15. 47	1	102.52. 7.93	18,968	
473	Bessel XIII. 261....	15	9	- 6.86	6.42	13.16. 18	1	104.25. 8.25	18,953	
474	Spica.....	6		- 6.04	57.69					
475	_____	14		- 6.01	51.87	13.17. 21	3	100.22. 54.55	18,923	
476	_____	19		- 5.96	53.85					
477	Spica R.....	6		- 6.04	53.58					No. 464. Bessel XIII. 131 has nearly the same N.P.D., but greater R.A. by 12". There is no such star. See Zodiacal observations of 1849 No. 264.
478	_____	14		- 6.01	55.49		2	100.22. 53.53	18,923	
479	Bessel XIII. 321 ...	Apr. 25		- 5.35	33.38	13.20. 3	1	94.11. 34.90	18,843	
480	Bessel XIII. 363 ...	May 13	9	- 6.50	48.43					
481	_____	19	8 $\frac{1}{2}$	- 6.54	50.51	13.22. 29	2	103.47. 51.29	18,769	
482	Bessel XIII. 409 ...	15	9	- 4.85	33.43	13.24. 44	1	95.10. 35.00	18,699	
483	Bessel XIII. 421 ...	Apr. 25	7	- 5.50	38.71	13.25. 25	1	97.40. 40.37	18,678	
484	Bessel XIII. 427 ...	25	7	- 5.48	1.41	13.25. 37	1	97.40. 3.07	18,672	
485	Bessel XIII. 444 ...	May 13	8 $\frac{1}{2}$	- 6.17	1.18	13.26. 37	1	102.40. 2.97	+ 18,639	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1851, as observed.	Approximate R.A. Jan. 1, 1851.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1851.	Annual Variation.	Notes.
				"	"	h. m. s.		"	"	
486	Bessel XIII. 445 ...	May 13	9.10	- 6.17	39.36	13.26.38	1	102.40.41.15	+ 18,639	No. 489. This N.P.D. was verified by an Equatorial observation April 3, 1857. That of H. C. is 1' less.
487	ζ Virginis.....	Apr. 15		- 5.13	54.78	13.27.6	1	89.49.56.08	18,623	
488	H. C. 25180	25	8	- 5.41	51.61	13.30.30	1	98.19.53.29	18,511	
489	H. C. 25199	May 13	8	- 6.27	55.29	13.31.21	1	104.26.57.12	18,482	
490	Bessel XIII. 572....	Apr. 25	8½	- 5.45	23.49	13.33.19	1	100.32.25.24	18,415	
491	Bessel XIII. 674 ...	25	9	- 5.32	18.91	13.39.26	1	102.9.20.69	18,197	
492	Bessel XIII. 750 ...	24	8	- 5.16	28.87	13.43.39	1	102.16.30.65	18,038	
493	Bessel XIII. 773....	25	9	- 4.91	33.18	13.45.26	1	97.21.34.82	17,969	
494	Bessel XIII. 1023...	25	7½	- 4.69	13.86	13.57.53	1	101.59.15.64	17,460	
495	H. C. 25979	25	8	- 4.55	2.91	14.3.5	1	106.19.4.76	17,231	
496	α Virginis.....	May 13		- 4.40	36.82	14.4.57	1	99.34.38.54	17,147	
497	ε Virginis.....	13		- 3.77	12.85	14.8.13	1	95.17.14.42	16,997	
498	Arcturus.....	17		- 0.20	19.27					No. 504. The sky was thick on the night of May 23, and the estimation of magnitudes uncertain.
499	—	Nov. 10		- 5.74	20.94	14.8.52	3	70.2.21.71	16,967	
500	—	19		- 8.12	19.94					
501	Arcturus R.....	May 17		- 0.20	23.49					
502	—	Nov. 10		- 5.74	20.04		3	70.2.21.20		
503	—	19		- 8.12	22.84					
504	Bessel XIV. 190....	May 23	9.10	- 4.83	42.39	14.11.6	1	104.32.44.22	16,862	
505	H. C. 26210	Apr. 25	8	- 4.16	48.85	14.12.34	1	108.38.50.72	16,792	
506	H. C. 26283	25	7½	- 4.01	6.01	14.15.42	1	109.7.7.88	16,641	
507	H. C. 26410	25	9	- 3.87	39.32					
508	—	May 9	9½	- 4.43	43.80	14.20.28	2	106.17.43.41	16,404	
509	H. C. 26541	19	7½	- 4.73	38.48	14.25.49	1	108.51.40.35	16,130	No. 550. This is Argelander z. 213. No. 12. The N.P.D. of H. C. is 5' too small.
510	Bessel XIV. 512	23	9	- 3.98	24.73	14.28.12	1	103.22.26.54	16,006	
511	Bessel XIV. 548	19	8½	- 4.03	17.48	14.30.2	1	104.18.19.31	15,909	
512	H. C. 26746	19	9	- 4.50	15.29	14.34.8	1	110.33.17.17	15,687	
513	H. C. 26821	23	8.9	- 4.03	19.85	14.36.13	1	106.14.21.70	15,573	
514	ε Bootis	Apr. 22		- 3.82	37.52					
515	—	May 9		- 0.34	37.81	14.38.29	2	62.17.39.46	15,448	
516	ε Bootis R.....	Apr. 22		- 3.82	42.56					
517	—	May 9		- 0.34	42.04		2	62.17.41.25	15,448	
518	Bessel XIV. 784	23	8	- 3.62	12.54	14.42.3	1	104.43.14.38	15,247	
519	α ¹ Libræ.....	Apr. 28		- 3.18	8.06					
520	—	May 13		- 3.54	6.84	14.42.39	2	105.25.9.29	15,212	
521	Bessel XIV. 833	19	8	- 3.51	19.14	14.44.18	1	104.46.20.98	15,118	No. 550. This is Argelander z. 213. No. 12. The N.P.D. of H. C. is 5' too small.
522	ξ ¹ Libræ.....	9	7.8	- 3.20	11.07	14.46.18	1	101.17.12.84	15,003	
523	ξ ² Libræ.....	23	7	- 2.92	16.47	14.48.41	1	100.48.18.23	14,863	
524	Bessel XIV. 921	19	9	- 2.93	9.03	14.48.58	1	100.54.10.79	14,847	
525	17 Libræ.....	9	7.8	- 3.04	8.85	14.50.9	1	100.33.10.60	14,777	
526	18 Libræ.....	9	7.8	- 3.02	28.63	14.50.51	1	100.32.30.38	14,735	
527	δ Libræ.....	14		- 2.74	25.54	14.53.1	1	97.55.27.21	14,606	
528	δ Libræ R.....	13		- 2.77	28.67		1	97.55.27.74		
529	Bessel XIV. 1013...	19	8½	- 3.12	46.31	14.54.9	1	104.32.48.14	14,538	
530	Bessel XIV. 1023...	19	8	- 3.09	34.26	14.54.32	1	104.27.36.09	14,515	
531	B.A.C. 4947	23	8	- 3.34	28.20	14.54.45	1	107.2.30.05	14,502	
532	H. C. 27516	19	7½	- 2.65	20.48	15.0.0	1	101.28.22.25	14,180	
533	β Libræ.....	13		- 2.88	42.30	15.9.0	1	98.49.43.99	13,613	No. 550. This is Argelander z. 213. No. 12. The N.P.D. of H. C. is 5' too small.
534	β Libræ R.....	13		- 2.88	47.24		1	98.49.46.29		
535	δ Bootis.....	23		+ 2.71	33.67	15.9.30	1	56.7.35.40	13,581	
536	δ Bootis R.....	25		+ 2.71	36.16		1	56.7.35.17		
537	ζ ¹ Libræ.....	Apr. 17		- 1.83	32.37	15.19.52	1	106.11.34.22	12,900	
538	γ Libræ.....	17		- 1.89	16.40	15.27.12	1	104.17.18.23	12,402	
539	Bessel XV. 683	June 17	8.9	- 0.96	55.65	15.35.32	1	103.32.57.46	11,821	
540	η Libræ.....	May 14		- 1.52	38.00					
541	—	15		- 1.51	35.17					
542	α Serpentis.....	17		- 1.00	6.12	15.36.56	1	83.6.17.26	11,722	
543	α Serpentis R.....	17		- 1.00	8.12		1	83.6.7.72		
544	θ Libræ.....	14		- 1.11	14.90					No. 550. This is Argelander z. 213. No. 12. The N.P.D. of H. C. is 5' too small.
545	—	15		- 1.13	13.01	15.45.21	2	106.17.15.81	11,116	
546	θ Libræ R.....	15		- 1.13	11.24		1	106.17.10.13		
547	H. C. 28966	June 21	8½	- 2.00	39.00	15.47.59	1	112.44.40.88	10,924	
548	H. C. 29130	17	8½	- 1.10	53.64	15.53.36	1	109.1.55.51	10,508	
549	H. C. 29306	17	8.9	- 0.63	44.97	15.58.41	1	107.31.46.83	10,127	
550	H. C. 29460	17	9	- 1.18	13.95	16.3.13	1	112.51.15.83	9,783	
551	H. C. 29488	19	8.9	- 0.61	47.71	16.4.5	1	109.6.49.58	9,716	
552	B.A.C. 5436.....	17	7.8	- 0.41	57.91					
553	—	19	8	- 0.42	58.25	16.10.25	2	109.50.59.06	9,228	
554	H. C. 29840.....	17	8.9	- 0.51	39.86	16.16.28	1	113.6.41.74	+ 8,754	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1851, as observed.	Approximate R.A. Jan. 1, 1851.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1851.	Annual Variation.	Notes.
				"	"	h. m. s.		° ' "	"	
555	ρ Ophiuchi.....	June 17	7	- 0.49	55.48	16. 16. 39	2	113. 5. 55.63	+ 8,739	No. 555. Called ρ Ophiuchi in Lalande, and ρ Ophiuchi in the British Association Reduction. No. 556. The estimations of magnitude of this and other low stars are affected by atmospheric circumstances.
556		19	8	- 0.55	52.02					
557	B.A.C. 5478.....	19	8.9	- 0.54	22.41	16. 16. 40	1	113. 3. 24.29	8,739	
558	ϕ Ophiuchi.....	May 15		+ 0.28	57.56					
559		Aug. 5		+ 0.09	57.28	16. 22. 37	2	106. 16. 59.27	8,267	
560	ω Ophiuchi.....	June 17	7	+ 0.08	33.13	16. 23. 19	1	111. 8. 35.01	8,211	
561	H. C. 30069.....	19	9	- 0.21	7.88	16. 24. 52	1	113. 58. 9.76	8,088	
562	H. C. 30172.....	17	9	+ 0.80	58.30	16. 28. 26	1	106. 51. 0.15	7,801	
563	H. C. 30248.....	19	8 $\frac{1}{2}$	- 0.07	38.71	16. 30. 58	1	115. 45. 40.59	7,596	
564	B.A.C. 5573.....	17	8	+ 0.90	48.39	16. 32. 40	1	107. 45. 50.25	7,458	
565	B.A.C. 5579.....	May 15		+ 0.73	52.30	16. 32. 58	1	107. 26. 54.15	7,434	No. 563. This is B.A.C. 5564, the place of which derived from Lacaille, is inaccurate.
566	B.A.C. 5579 R.....	15		+ 0.73	59.80		1	107. 26. 58.69		
567	25 Scorpii.....	June 19	8 $\frac{1}{4}$	+ 0.37	5.20	16. 37. 44	1	115. 15. 7.08	7,045	
568	H. C. 30544.....	25	9	+ 0.36	16.35	16. 40. 28	1	114. 48. 18.23	6,821	
569	H. C. 30609.....	17	9	+ 0.61	48.69					
570		19	8.9	+ 0.51	47.51	16. 42. 38	2	116. 36. 49.98	6,642	
571	H. C. 30619.....	17	9 $\frac{1}{4}$	+ 0.61	37.02					
572		19	9	+ 0.52	35.45	16. 43. 0	2	116. 39. 38.12	6,612	
573	H. C. 30744.....	25	9	+ 1.55	41.85	16. 47. 21	1	107. 39. 43.71	6,251	
574	B.A.C. 5712.....	July 4	8	+ 1.85	42.75	16. 51. 4	1	108. 0. 44.61	5,941	
575	H. C. 30887.....	June 25	9 $\frac{1}{4}$	+ 0.82	34.04	16. 52. 29	1	116. 43. 35.92	5,823	
576	ϵ Herculis.....	21		+ 6.15	59.57					
577		27		+ 8.08	60.23	16. 54. 35	2	58. 51. 1.68	5,647	
578	ϵ Herculis R.....	21		+ 6.15	63.47					
579		27		+ 8.08	63.52		2	58. 51. 2.46		
580	H. C. 31000.....	July 4	9	+ 2.10	29.41	16. 55. 47	1	107. 55. 31.27	5,546	
581	59 Herculis R.....	June 19		+ 6.33	45.89	16. 56. 6	1	56. 12. 44.90	5,519	
582	B.A.C. 5759.....	25	8.9	+ 1.17	17.08	16. 57. 39	1	116. 18. 18.96	5,389	
583	η Ophiuchi.....	July 10		+ 2.87	6.64	17. 1. 50	1	105. 32. 8.49	5,035	
584	H. C. 31195.....	June 25	9.10	+ 1.57	17.04					
585		26	9	+ 1.55	15.68	17. 2. 13	3	114. 50. 18.42	5,008	
586		July 4	9	+ 1.33	16.89					
587	H. C. 31337.....	10	8	+ 2.02	42.79	17. 7. 29	1	111. 40. 44.67	4,555	
588	α Herculis.....	June 27		+ 6.19	8.21	17. 7. 51	1	75. 26. 9.51	4,524	
589	α Herculis R.....	27		+ 6.19	8.98		1	75. 26. 8.42		
590	H. C. 31429.....	26	8.9	+ 2.64	30.88					
591		July 12	9	+ 2.72	31.99	17. 10. 45	2	108. 47. 33.31	4,277	
592	ξ Ophiuchi.....	10		+ 2.39	51.43	17. 12. 5	1	110. 56. 53.31	4,162	
593	θ Ophiuchi.....	Aug. 7		+ 1.07	41.82	17. 12. 52	1	114. 50. 43.70	4,095	
594	H. C. 31646.....	June 26	8 $\frac{3}{4}$	+ 2.96	24.24					
595		July 12	9.10	+ 3.12	27.10	17. 16. 37	2	108. 8. 27.53	3,774	
596	b Ophiuchi.....	Aug. 7		+ 1.54	57.30	17. 17. 17	1	114. 1. 59.18	3,716	
597	H. C. 31784.....	July 12	9.10	+ 3.40	51.22	17. 21. 0	1	107. 40. 53.08	3,396	
598	H. C. 31791.....	12	8.9	+ 3.42	14.12	17. 21. 18	1	107. 41. 15.98	3,370	
599	λ Herculis.....	June 27		+ 7.03	20.65	17. 24. 43	1	63. 46. 22.44	3,075	
600	λ Herculis R.....	27		+ 7.03	24.78		1	63. 46. 23.73		
601	H. C. 31954.....	July 12	8	+ 3.55	46.08	17. 25. 51	1	108. 6. 47.94	2,977	
602	α Ophiuchi.....	16		+ 9.03	37.11					
603		Sept. 3		+ 13.58	36.69	17. 28. 1	2	77. 19. 38.13	2,790	
604	α Ophiuchi R.....	July 16		+ 9.03	38.87					
605		Sept. 3		+ 13.58	39.91		2	77. 19. 38.90		
606	H. C. 32119.....	July 10	9.10	+ 3.04	16.09	17. 30. 54	1	112. 58. 17.97	2,540	
607	H. C. 32706.....	June 28	9	+ 4.34	27.11	17. 46. 23	1	108. 15. 28.97	1,191	
608	H. C. 32847.....	30	8 $\frac{1}{4}$	+ 4.24	48.00	17. 49. 57	1	112. 29. 49.88	0,879	
609	H. C. 32865.....	30	8 $\frac{1}{4}$	+ 4.27	53.21	17. 50. 26	1	112. 26. 55.09	0,837	
610	B.A.C. 6097.....	Aug. 28	7 $\frac{1}{2}$	+ 2.81	29.32	17. 53. 43	1	114. 16. 31.20	0,550	
611	B.A.C. 6111.....	23		+ 3.01	0.58					
612		28	8 $\frac{1}{2}$	+ 2.88	2.36	17. 56. 2	2	114. 24. 3.35	0,347	
613	H. C. 33180.....	June 28	9	+ 4.60	40.73					
614		30	8.9	+ 4.55	41.36	17. 58. 54	2	115. 21. 42.93	+ 0,096	
615	B.A.C. 6158.....	28	8	+ 4.81	53.81					
616		30	8	+ 5.01	52.05	18. 2. 25	2	109. 51. 4.81	- 0,211	
617	μ^1 Sagittarii.....	Aug. 7		+ 4.76	29.35					
618		Sept. 3		+ 4.24	29.56	18. 4. 51	2	111. 5. 31.34	0,424	
619	μ^1 Sagittarii R.....	Aug. 7		+ 4.76	34.04		1	111. 5. 32.90		
620	*.....	June 28	9	+ 5.26	29.53	18. 7. 13	1	108. 28. 31.39	0,631	
621	H. C. 33513.....	Sept. 5		+ 5.17	13.00	18. 7. 16	1	108. 35. 14.87	0,636	
622	B.A.C. 6217.....	Aug. 18		+ 3.79	33.24					
623		19		+ 3.76	34.80					
624		21		+ 3.69	34.03	18. 12. 21	4	114. 58. 35.65	- 1,080	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1851, as observed.	Approximate R.A. Jan. 1, 1851.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1851.	Annual Variation.	Notes.
				"	"	h. m. s.		" ' "	"	
625	B.A.C. 6217.....	Aug. 22		+ 3.66	33.02					
626	B.A.C. 6222.....	Sept. 15		+ 3.74	3.50	18.13. 2	2	112.59. 5.10	- 1,140	
627	-----	17		+ 3.70	2.93					
628	*.....	June 28	9.10	+ 5.44	18.56	18.14.36	1	116.26.20.44	1,277	No. 628. The R.A. depends on a rough Circle observation of the time of transit across the 5th wire. (See the Addenda to the Introduction).
629	λ Sagittarii.....	Aug. 7		+ 5.39	52.59					
630	-----	Sept. 3		+ 3.43	50.54	18.18.47	2	115.29.53.45	1,642	
631	δ Ursæ Minoris....	Dec. 11		+ 9.77	8.49	18.20.24	1	3.24. 8.07	1,783	
632	δ Ursæ Minoris R..	11		+ 9.77	7.02		1	3.24. 8.18		
633	δ Ursæ Minoris SP.	Feb. 11		- 9.33	9.06					
634	-----	24		- 12.13	10.09		3	3.24. 8.77		
635	-----	Dec. 11		+ 9.62	6.22					
636	δ Ursæ Min. SP. R.	Feb. 11		- 9.33	9.56					
637	-----	Dec. 24		- 12.13	9.66		3	3.24. 8.71		
638	-----	11		+ 9.62	10.07					
639	23 Sagittarii.....	Sept. 13		+ 3.99	37.91					
640	-----	15		+ 3.94	37.63	18.21.26	3	113.20.39.62	1,873	
641	-----	17		+ 3.90	37.67					
642	B.A.C. 6292.....	June 28	8	+ 5.91	48.44	18.22.35	1	108.59.50.31	1,973	
643	H. C. 34339.....	28	8½	+ 6.08	44.95	18.26.29	1	107. 5.46.80	2,312	
644	B.A.C. 6343.....	Sept. 13		+ 4.23	34.66					
645	-----	15		+ 4.18	33.74	18.29.27	3	113.37.36.00	2,570	
646	-----	17		+ 4.13	34.11					
647	H. C. 34532.....	June 28	9¼	+ 6.30	29.87	18.31.11	1	112.47.31.75	2,720	
648	β Lyræ.....	28		+ 5.18	24.06	18.44.35	1	56.48.25.81	3,877	
649	β Lyræ R.....	28		+ 5.18	24.37		1	56.48.23.36		
650	λ Lyræ.....	25		+ 4.01	32.15	18.54.23	1	58. 3.33.91	4,714	
651	λ Lyræ R.....	25		+ 4.01	35.48		1	58. 3.34.46		
652	o Sagittarii.....	July 12		+ 7.48	15.33	18.55.45	1	111.57.17.21	4,830	
653	ζ Aquilæ.....	June 28		+ 5.72	12.45	18.58.34	1	76.21.13.72	5,069	
654	ζ Aquilæ R.....	28		+ 5.72	14.86		1	76.21.14.33		
655	π Sagittarii.....	July 12		+ 7.75	19.87	19. 0.54	1	111.15.21.75	5,266	
656	H. C. 36403.....	5	9¼	+ 8.20	51.57	19.13.20	1	109.23.53.44	6,308	
657	H. C. 36501.....	4	8.9	+ 8.18	38.16	19.15.13	1	107.28.40.01	6,464	
658	H. C. 36591.....	Aug. 7	8½	+ 8.19	0.06	19.17.15	1	111.50. 1.94	6,632	
659	H. C. 36666.....	July 4	8.9	+ 8.38	42.72	19.19. 0	1	108.38.44.59	6,777	
660	B.A.C. 6658.....	4	8¼	+ 8.39	20.96	19.19.25	1	108.39.22.83	6,811	No. 660. Of Mag. 6 in B.A.C.
661	B.A.C. 6683.....	Aug. 7	8	+ 8.50	34.18	19.23.25	1	111.49.36.06	7,139	
662	h² Sagittarii.....	July 12		+ 8.96	26.15	19.27.38	1	115.12.28.03	7,483	
663	H. C. 37071.....	Aug. 7	8½	+ 8.65	39.69	19.28. 3	1	112.13.41.57	7,517	
664	H. C. 37096.....	7	9	+ 8.68	49.72	19.28.34	1	112.16.51.60	7,558	
665	H. C. 37238.....	July 5	9	+ 9.32	56.07	19.31.35	1	118. 1.57.94	7,802	
666	e² Sagittarii.....	12		+ 9.17	5.61	19.34. 0	1	106.28. 7.46	7,997	
667	H. C. 37531.....	5	8.9	+ 8.98	59.60	19.38. 2	1	106.34. 1.45	8,319	
668	α Aquilæ.....	Aug. 7		+ 12.87	14.54	19.43.31	1	81.31.15.67	8,753	
669	α Aquilæ R.....	7		+ 12.87	17.88		1	81.31.17.49		
670	H. C. 37782.....	July 5	8.9	+ 9.53	39.38	19.44. 6	1	111.26.41.26	8,799	
671	H. C. 38503.....	18	8¼	+ 10.40	39.40	20. 1. 7	1	108.46.41.27	10,112	
672	ξ¹ Capricorni R....	Aug. 7		+ 11.25	54.04	20. 3.42	1	102.49.55.84	10,306	
673	H. C. 38876.....	July 18	9	+ 10.71	12.71	20. 9.27	1	108.43.14.58	10,735	
674	H. C. 39116.....	18	8.9	+ 10.89	47.39	20.14.35	1	108.48.49.26	11,111	
675	B.A.C. 7040.....	21	8¼	+ 11.32	10.07	20.19.54	1	114.28.11.95	11,496	No. 675. For the R.A. see No. 688, p. 221.
676	41 Cygni.....	Oct. 8		+ 23.12	30.16	20.23.18	1	60. 7.31.95	11,738	
677	41 Cygni R.....	8		+ 23.12	33.00		1	60. 7.31.85		
678	B.A.C. 7069.....	July 18	9	+ 11.35	12.01	20.23.30	1	112.39.13.89	11,752	Nos. 678 and 679. Of magnitudes 7½ and 8 in B.A.C.
679	B.A.C. 7070.....	18	9¼	+ 11.35	35.68	20.23.32	1	112.39.37.56	11,755	
680	Bessel xx. 612.....	Sept. 11		+ 11.78	44.60	20.24.32	1	104. 2.46.42	11,826	
681	τ² Capricorni.....	July 21	6	+ 11.40	22.70	20.30.56	1	105.28.24.55	12,273	
682	Bessel xx. 796....	21	9	+ 11.41	40.49	20.31.13	1	105.29.42.34	12,293	
683	θ Delphini.....	Oct. 8		+ 19.19	16.51	20.31.42	1	77.12.17.74	12,326	
684	θ Delphini R.....	8		+ 19.19	18.49		1	77.12.18.00		
685	Bessel xx. 823.....	Sept. 11	8¼	+ 11.59	50.51	20.32.20	1	105.55.52.36	12,370	
686	H. C. 39981.....	24	8.9	+ 10.03	26.69	20.35.23	1	109.52.28.57	12,579	
687	Σ 2721.....	Oct. 8		+ 20.69	4.14	20.36.47	1	71.39. 5.68	12,674	
688	ψ Capricorni.....	4		+ 7.58	8.13	20.37.16	1	115.48.10.01	12,707	
689	*.....	Sept. 11	9.10	+ 11.94	25.40	20.37.43	1	105.15.27.24	12,737	No. 689. The R.A. is roughly approximate. (See the Addenda to the Introduction).
690	Bessel xx. 965.....	11	9.10	+ 11.94	0.34	20.37.53	1	105.16. 2.18	12,748	
691	Bessel xx. 1024....	July 21	9	+ 11.66	0.00	20.40.10	1	105.27. 1.84	12,902	
692	Bessel xx. 1051....	21	9	+ 11.68	43.28	20.40.50	1	105.26.45.12	12,946	
693	4 Cephei.....	Sept. 12		+ 21.29	60.11					
694	-----	13		+ 21.55	60.44	20.41.18	2	23.53. 0.27	- 12,978	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1851, as observed.	Approximate R.A. Jan. 1, 1851.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1851.	Annual Variation.	Notes.
				"	"	h. m. s.		" " "	"	
695	4 Cephei R.	Sept. 12		+ 21,29	61,89		2	23. 53. 1,49		
696	—	13		+ 21,55	59,59					
697	Bessel xx. 1106....	24	8	+ 11,84	30,07	20. 43. 4	1	104. 28. 31,90	- 13,095	
698	Bessel xx. 1203....	24	8.9	+ 12,15	39,49	20. 47. 9	1	103. 49. 41,31	13,364	
699	Bessel xx. 1305....	Oct. 28	9.10	+ 11,20	50,65	20. 50. 54	1	102. 3. 52,43	13,607	
700	H. C. 40616.....	Sept. 12	8	+ 10,56	21,73					
701	—	13	8½	+ 10,49	22,31	20. 52. 37	3	113. 27. 23,60	13,716	
702	—	24	9	+ 9,65	21,13					
703	Bessel xx. 1486....	24	9	+ 12,54	44,21					
704	—	Oct. 28	9	+ 10,83	44,21	20. 58. 12	2	103. 35. 46,02	14,069	
705	B.A.C. 7325	Sept. 12	7½	+ 11,39	19,34					
706	—	13	7½	+ 11,33	20,68	20. 58. 12	2	110. 46. 21,89		
707	Bessel xx. 1541....	12	9.10	+ 12,84	51,79					
708	—	13	8½	+ 12,81	54,13	21. 0. 21	2	104. 25. 54,79	14,202	
709	ν Aquarii	Nov. 1		+ 11,25	16,90	21. 1. 28	1	101. 58. 18,68	14,271	
710	ν Aquarii R.....	1		+ 11,25	(25,98)					
711	H. C. 40994.....	Sept. 24	8½	+ 11,94	7,72	21. 1. 51	1	106. 18. 9,57	14,295	
712	Bessel xxi. 28.....	Oct. 28	8.9	+ 10,57	50,63	21. 2. 50	1	104. 39. 52,46	14,355	
713	Bessel xxi. 52.....	28	8.9	+ 10,58	7,52	21. 3. 45	1	104. 39. 9,35	14,411	No. 713. This star is Bessel z. 117, 21h. 2m. 3s and z. 119, 21h. 2m. 9s. The declination is correct in the latter zone and erroneous in the other. Weisse has rejected the correct declination.
714	H. C. 41200.....	Sept. 24	8½	+ 12,24	23,34	21. 6. 55	1	105. 44. 25,19	14,602	
715	29 Capricorni.....	Aug. 11		+ 13,21	12,96					
716	—	Sept. 24	7	+ 12,26	13,42	21. 7. 30	3	105. 47. 15,45	14,637	
717	—	Nov. 1		+ 10,03	14,42					
718	*.....	Sept. 12	10	+ 13,40	25,14					
719	—	13	11	+ 13,54	24,81	21. 8. 52	2	102. 0. 26,76	14,718	No. 718 and 719. The R.A. is uncertain. (See the Addenda to the Introduction).
720	Σ 2783.....	Oct. 28	8	+ 28,71	7,61	21. 10. 0	1	32. 19. 8,17	14,786	
721	Bessel xxi. 295....	Sept. 13	8	+ 13,50	45,81	21. 13. 17	1	102. 56. 47,61	14,978	
722	Bessel xxi. 296....	13	8½	+ 13,49	28,84	21. 13. 17	1	102. 57. 30,64	14,978	
723	Bessel xxi. 307....	12	9	+ 13,53	47,35					
724	—	13	10.11	+ 13,50	49,41	21. 13. 43	2	102. 59. 50,18	15,003	
725	ι Capricorni.....	Aug. 11		+ 13,36	55,11	21. 13. 57	1	107. 27. 56,97	15,017	
726	H. C. 41544.....	Sept. 24	9	+ 13,20	40,07	21. 15. 36	1	102. 41. 41,86	15,112	
727	Bessel xxi. 418....	12		+ 13,71	38,74					
728	—	13	8	+ 13,68	41,09	21. 18. 19	2	102. 43. 41,71	15,267	
729	Bessel xxi. 423....	13	9.10	+ 13,69	11,20	21. 18. 25	1	102. 40. 12,99	15,273	
730	Bessel xxi. 458....	Nov. 10	9	+ 10,24	24,61	21. 19. 52	1	104. 20. 26,44	15,355	
731	H. C. 41760.....	Sept. 24	8	+ 12,94	20,65	21. 21. 31	1	104. 40. 22,48	15,448	
732	B.A.C. 7473	12	7.8	+ 12,49	18,61					
733	—	13		+ 12,43	19,46	21. 23. 3	2	109. 53. 20,92	15,533	
734	β Aquarii.....	Oct. 28		+ 13,88	24,78	21. 23. 43	1	96. 13. 26,39	15,570	
735	Bessel xxi. 562....	Nov. 1	8.9	+ 12,00	52,26	21. 24. 16	1	101. 10. 54,02	15,600	
736	Bessel xxi. 572....	1	8	+ 12,01	0,80	21. 24. 34	1	101. 12. 2,56	15,616	
737	Bessel xxi. 603....	Sept. 24	9½	+ 13,51	45,05					
738	—	Nov. 10	9.10	+ 10,90	44,46	21. 25. 51	2	102. 47. 46,56	15,687	
739	ε Capricorni.....	Sept. 12		+ 12,65	47,97					
740	—	13		+ 12,59	49,23	21. 28. 44	2	110. 7. 50,48	15,843	
741	*.....	13		+ 12,59	2,22	21. 28. (50)	1	110. 7. 4,10	15,843	No. 741. The R.A. and annual variation are not exact. (See the Addenda to the Introduction).
742	Σ 445.....	Oct. 28	9	+ 22,08	52,07	21. 32. 25	1	69. 56. 53,73	16,038	
743	δ Capricorni.....	Nov. 1		+ 10,31	0,91	21. 38. 49	1	106. 48. 2,76	16,368	
744	Bessel xxi. 1383...	Sept. 12	8	+ 14,53	26,25	21. 59. 51	1	104. 18. 28,08	17,361	
745	Bessel xxii. 82....	12	9	+ 14,61	54,19	22. 4. 48	1	104. 37. 56,02	17,574	
746	Bessel xxii. 91....	10	8	+ 14,67	14,89					
747	—	12	8	+ 14,63	14,73	22. 5. 5	2	104. 36. 16,64	17,586	
748	Bessel xxii. 183...	10	8½	+ 14,74	60,12					
749	—	12	8½	+ 14,67	57,79	22. 9. 8	2	104. 56. 0,80	17,753	
750	Bessel xxii. 184...	12	8½	+ 14,67	54,92	22. 9. 13	1	104. 53. 56,76	17,757	
751	ε Cephei	Oct. 8		+ 24,32	53,24	22. 9. 33	1	33. 41. 53,90	17,770	
752	ε Cephei R.....	8		+ 24,32	50,89					
753	H. C. 43611.....	Sept. 10	10.11	+ 15,32	28,39	22. 14. 0	1	100. 21. 30,14	17,947	
754	Bessel xxii. 357...	12	8	+ 15,17	24,54					
755	—	Oct. 8	9	+ 14,10	24,43	22. 16. 54	2	102. 8. 26,27	18,059	
756	Bessel xxii. 415...	Sept. 10	8	+ 15,17	42,92					
757	—	12	8	+ 15,12	39,87	22. 19. 31	2	103. 1. 16,95	18,158	No. 755. The magnitude was recorded doubtfully.
758	Bessel xxii. 420...	12	10	+ 15,14	27,48	22. 19. 45	1	103. 2. 29,28	18,166	
759	Bessel xxii. 459...	Oct. 8		+ 14,18	54,12	22. 21. 47	1	102. 16. 55,91	18,241	
760	Bessel xxii. 517...	14	9	+ 14,68	39,41	22. 24. 36	1	99. 2. 41,11	18,342	
761	Bessel xxii. 548...	Sept. 12	8	+ 15,92	5,11					
762	—	Nov. 3	8½	+ 14,60	4,80	22. 26. 10	2	95. 39. 6,55	18,397	No. 761 and 762. This is H. C. 41064, the N.P.D. of which is 1' too great.
763	Bessel xxii. 588...	Sept. 10	9.10	+ 15,39	12,12					No. 764. No mention of atmospheric circumstances. The star appears to be faint.
764	—	12	10.11	+ 15,36	8,46	22. 28. 4	3	102. 22. 12,38	- 18,462	

Reference Number.	Name of Star.	Day of Observation.	Observed Mag.	Correction to Mean N.P.D.	Seconds of N.P.D. Jan. 1, 1851, as observed.	Approximate R.A. Jan. 1, 1851.	Number of Obs.	Concluded Mean N.P.D. Jan. 1, 1851.	Annual Variation.	Notes.
				"	"	h. m. s.		° ' "	"	
765	Bessel xxii. 588 ...	Oct. 8		+ 14,24	11,18					
766	Bessel xxii. 630 ...	14		+ 13,49	2,95	22. 29. 59	1	103. 58. 4,77	- 18,528	
767	Bessel xxii. 752 ...	Nov. 14		+ 12,49	50,98	22. 35. 11	2	99. 55. 53,29	18,696	
768	—	15		+ 12,42	52,11					
769	τ ² Aquarii.....	Sept. 8		+ 15,54	36,39	22. 41. 42	3	104. 22. 38,40	18,895	
770	—	9		+ 15,50	36,83					
771	—	Nov. 3		+ 11,93	36,50					
772	λ Aquarii	Oct. 24		+ 14,52	14,95	22. 44. 50	1	98. 22. 16,63	18,985	
773	δ Aquarii.....	Sept. 8		+ 15,51	40,66					
774	—	9		+ 15,48	40,60	22. 46. 44	3	106. 36. 41,88	19,038	
775	—	Nov. 3		+ 11,28	38,84					
776	Bessel xxii. 1007 ..	4	8.9	+ 12,72	25,22	22. 48. 16	1	101. 51. 27,00	19,080	
777	Bessel xxii. 1068 ..	3	8.9	+ 13,70	33,68	22. 51. 14	1	99. 0. 35,38	19,158	
778	Bessel xxii. 1162 ..	4	9.10	+ 12,64	21,35	22. 54. 52	1	102. 2. 23,13	19,250	
779	Bessel xxii. 1205 ..	3	9	+ 14,36	50,49	22. 56. 44	1	96. 58. 52,12	19,295	
780	α Pegasi.....	Sept. 19		+ 17,32	42,32	22. 57. 20	2	75. 35. 43,71	19,309	
781	—	Oct. 24		+ 20,14	42,50					
782	α Pegasi R.....	Sept. 19		+ 17,32	42,46		2	75. 35. 42,22		
783	—	Oct. 24		+ 20,14	43,09					
784	Bessel xxii. 1292 ..	Nov. 4	9.10	+ 12,93	4,05	23. 1. 20	1	101. 30. 5,82	19,401	
785	π Cephei SP.....	Apr. 5		- 11,38	61,04	23. 3. 10	1	15. 25. 1,04	19,441	No. 785. No correction has been applied for discordance of zenith point, there being no observations proper for determining it.
786	π Cephei SP. R....	5		- 11,38	(49,70)					
787	Bessel xxiii. 103 ..	Nov. 4	9	+ 15,03	59,89	23. 6. 16	1	99. 44. 1,62	19,506	
788	Bessel xxiii. 104 ..	4	9½	+ 15,03	25,78	23. 6. 16	1	99. 44. 27,51	19,506	
789	φ Aquarii.....	Sept. 10		+ 16,09	2,64	23. 6. 36	2	96. 51. 5,33	19,512	
790	—	Oct. 7		+ 15,86	4,77					
791	φ Aquarii R.....	Sept. 10		+ 16,09	(10,04)					No. 791. Too discordant.
792	ψ ² Aquarii.....	10		+ 16,06	26,12					
793	—	Oct. 7		+ 15,27	27,19	23. 11. 13	3	100. 25. 17,42	19,602	
794	—	Nov. 3		+ 13,39	25,92					
795	Bessel xxiii. 579 ..	Oct. 10	8½	+ 15,86	19,23	23. 28. 6	1	96. 34. 20,85	19,860	
796	B.A.C. 8221.....	Nov. 3		+ 12,48	5,94	23. 29. 56	2	103. 53. 8,50	19,882	
797	—	4		+ 12,37	7,41					
798	Bessel xxiii. 678 ..	24	9.10	+ 14,39	8,21	23. 32. 52	1	92. 11. 9,63	19,914	
799	B.A.C. 8239.....	3		+ 12,88	21,53	23. 33. 26	2	102. 30. 23,90	19,920	
800	—	4		+ 12,02	22,69					
801	Bessel xxiii. 723 ..	Oct. 10		+ 15,35	7,83	23. 35. 25		99. 47. (9,56)	19,939	No. 801. The circumstances very unfavorable. The N.P.D. differs 10'' from the result of two observations in 1850.
802	Bessel xxiii. 768 ..	Nov. 24	7	+ 14,67	5,88	23. 37. 27	1	88. 44. 7,14	19,957	
803	Bessel xxiii. 922 ..	3	9	+ 16,11	10,16	23. 45. 13	1	90. 6. 11,47	20,013	
804	H. C. 46918.....	Oct. 10	8	+ 16,63	51,64	23. 48. 48	1	90. 20. 52,96	20,030	
805	27 Piscium.....	Sept. 11		+ 16,04	55,00					
806	—	Oct. 7		+ 16,20	56,34	23. 51. 3	3	94. 22. 57,81	20,039	
807	—	8		+ 17,21	57,51					
808	H. C. 47030.....	Sept. 19		+ 16,25	49,95	23. 51. 55	1	92. 40. 51,40	20,042	
809	Bessel xxiii. 1107 ..	Oct. 10	8.9	+ 16,56	40,95	23. 53. 50	1	90. 31. 42,29	20,047	
810	33 Piscium.....	Jan. 9		- 9,64	25,64					
811	—	Sept. 11		+ 16,12	24,85	23. 57. 43	4	96. 32. 27,89	- 20,053	
812	—	Oct. 7		+ 15,93	27,00					
813	—	8		+ 15,89	27,61					

HORIZONTAL AND VERTICAL MEASURES
OF THE
DIAMETERS OF THE SUN AND MOON,
COMPARED WITH TABULAR DIAMETERS:
AND
RIGHT ASCENSIONS AND NORTH POLAR DISTANCES
OF THE SUN AND MOON,
AND THE PLANETS METIS, IRIS, HEBE, PARTHENOPE, ASTRÆA,
IRENE, EUNOMIA, HYGEIA AND NEPTUNE,
CONCLUDED FROM
OBSERVATIONS WITH THE TRANSIT AND MURAL CIRCLE,
AND COMPARED
WITH CALCULATED RIGHT ASCENSIONS AND NORTH POLAR DISTANCES.

1851.

SIDEREAL INTERVALS OCCUPIED BY TRANSITS OF THE SUN'S DIAMETER, AND VERTICAL
DIAMETERS OF THE SUN CORRECTED FOR REFRACTION AND PARALLAX; COMPARED
WITH THE VALUES IN THE NAUTICAL ALMANAC.

Day of Observation.	Interval by Obser- vation.	Seconds of Tabular Interval.	Excess of Tabular Interval.	Vertical Diameter by Observation.	Seconds of Tabular Diameter.	Excess of Tabular Diam ^r .	Day of Observation.	Interval by Obser- vation.	Seconds of Tabular Interval.	Excess of Tabular Interval.	Vertical Diameter by Observation.	Seconds of Tabular Diameter.	Excess of Tabular Diam ^r .
1851.	m. s.	s.	s.	" "	" "	" "	1851.	m. s.	s.	s.	" "	" "	" "
Jan. 4	2. 21,50	21,74	+ 0,24	32. 36,47	34,40	- 2,07	June 2	2. 17,13	16,74	- 0,39	31. 38,09	34,20	- 3,89
6	21,45	21,50	+ 0,05	40,71	34,40	- 6,31	4	16,89	16,94	+ 0,05			
9	20,99	21,10	+ 0,11	35,61	34,20	- 1,41	9				33,27	32,60	- 0,67
17	19,60	19,72	+ 0,12	33,84	33,20	- 0,64	11				29,27	32,20	+ 2,93
18	19,86	19,52	- 0,34	35,65	33,20	- 2,45	14	17,69	17,66	- 0,03	34,31	31,60	- 2,71
21	18,78	18,90	+ 0,12	32,51	32,60	+ 0,09	16				29,90	31,40	+ 1,50
22	18,87	18,70	- 0,17	31,36	32,40	+ 1,04	17				31,69	31,20	- 0,49
23	18,52	18,48	- 0,04				19	17,86	17,78	- 0,08	31,06	31,00	- 0,06
24	18,27	18,26	- 0,01	29,28	31,80	+ 2,52	21	17,84	17,80	- 0,04	33,21	30,80	- 2,41
27	17,59	17,58	- 0,01	29,56	31,00	+ 1,44	24	17,87	17,76	- 0,11	29,04	30,40	+ 1,36
28				30,43	30,80	+ 0,37	25	17,68	17,74	+ 0,06	31,85	30,40	- 1,45
30	17,08	16,90	- 0,18	30,08	30,20	+ 0,12	26	18,01	17,70	- 0,31	29,87	30,20	+ 0,33
Feb. 1	16,56	16,44	- 0,12	28,65	29,60	+ 0,95	27	17,80	17,66	- 0,14	31,67	30,20	- 1,47
4	15,79	15,74	- 0,05	26,05	28,80	+ 2,75	28	17,64	17,62	- 0,02	30,44	30,20	- 0,24
6	15,10	15,28	+ 0,18	27,14	28,20	+ 1,06	30	17,57	17,50	- 0,07	30,15	30,20	+ 0,05
8	14,78	14,82	+ 0,04	25,48	27,40	+ 1,92	July 2	17,35	17,36	+ 0,01			
11	14,08	14,16	+ 0,08	24,10	26,40	+ 2,30	3	17,42	17,28	- 0,14	29,50	30,00	+ 0,50
12	13,93	13,94	+ 0,01	23,74	26,00	+ 2,26	4	17,21	17,20	- 0,01	31,87	30,20	- 1,67
14				21,41	25,20	+ 3,79	5	17,08	17,12	+ 0,04	29,71	30,20	+ 0,49
15	13,20	13,30	+ 0,10	24,12	24,80	+ 0,68	17				29,88	31,20	+ 1,32
17	12,96	12,90	- 0,06	24,24	24,00	- 0,24	18	15,57	15,52	- 0,05	35,32	31,20	- 4,12
18	12,45	12,70	+ 0,25	22,73	23,60	+ 0,87	21	15,11	15,06	- 0,05	30,59	31,60	+ 1,01
20	12,08	12,30	+ 0,22	18,11	22,80	+ 4,69	22	14,92	14,90	- 0,02			
21	12,09	12,10	+ 0,01	16,96	22,20	+ 5,24	25	14,34	14,42	+ 0,08	31,54	32,40	+ 0,86
22	11,68	11,92	+ 0,24	21,86	21,80	- 0,06	29				37,20	33,20	- 4,00
25				20,45	20,40	- 0,05	Aug. 2	13,29	13,04	- 0,25	33,27	34,20	+ 0,93
26	11,17	11,22	+ 0,05	18,70	19,80	+ 1,10	4				34,83	34,80	- 0,03
27	10,99	11,06	+ 0,07	20,13	19,40	- 0,73	7	12,17	12,18	+ 0,01	38,16	35,60	- 2,56
Mar. 4	10,35	10,32	- 0,03	16,12	17,00	+ 0,88	11	11,70	11,52	- 0,18	38,80	37,00	- 1,80
13	9,54	9,34	- 0,20	11,91	12,40	+ 0,49	12	11,20	11,36	+ 0,16	35,64	37,20	+ 1,56
20	8,98	8,90	- 0,08	6,16	8,60	+ 2,44	19	10,20	10,28	+ 0,08	40,85	39,80	- 1,05
21	8,83	8,86	+ 0,03	6,17	8,00	+ 1,83	20	10,30	10,14	- 0,16	42,74	40,20	- 2,54
28	8,76	8,76	0,00	8,72	4,00	- 4,72	21	10,01	10,00	- 0,01	40,81	40,40	- 0,41
29	8,82	8,76	- 0,06	5,43	3,60	- 1,83	22	9,75	9,86	+ 0,11	42,35	40,80	- 1,55
Apr. 1				32. 1,94	1,80	- 0,14	25	9,57	9,48	- 0,09	41,69	42,20	+ 0,51
8	9,12	9,18	+ 0,06				Sept. 2				48,93	45,80	- 3,13
17				31. 46,26	53,20	(+6,94)	5	8,44	8,40	- 0,04			
19	10,34	10,24	- 0,10	52,21	52,20	- 0,01	10	8,03	8,14	+ 0,11	50,09	49,80	- 0,29
21	10,43	10,48	+ 0,05	52,36	51,20	- 1,16	11	8,26	8,10	- 0,16	50,51	50,20	- 0,31
23	10,83	10,74	- 0,09	51,28	50,20	- 1,08	12	8,17	8,06	- 0,11	49,39	50,80	+ 1,41
28				51,46	47,60	- 3,86	13	8,09	8,04	- 0,05	51,26	51,20	- 0,06
30	11,75	11,74	- 0,01	46,70	46,60	- 0,10	17	8,03	8,00	- 0,03	71,23	53,20	(-18,03)
May 7				44,75	43,40	- 1,35	18	7,90	7,98	+ 0,08	53,69	53,80	+ 0,11
8	12,92	13,02	+ 0,10	47,31	43,00	- 4,31	20	8,02	8,02	0,00	54,41	54,80	+ 0,39
10	13,22	13,26	+ 0,14	40,92	42,20	+ 1,28	22	7,95	8,06	+ 0,11	56,04	55,80	- 0,24
14	13,93	14,02	+ 0,09	38,92	40,60	+ 1,68	23	8,15	8,08	- 0,07	31. 57,26	56,40	- 0,86
16	14,52	14,34	- 0,18	48,13	39,80	- 8,33	Oct. 6	8,83	9,06	+ 0,23	32. 4,01	3,60	- 0,41
19	14,74	14,82	+ 0,08	38,05	38,60	+ 0,55	8	9,35	9,30	- 0,05	5,91	4,80	- 1,11
24	15,59	15,58	- 0,01	35,35	36,80	+ 1,45	10	9,66	9,56	- 0,10	6,62	5,80	- 0,82
26	15,86	15,86	0,00	31. 37,36	36,20	- 1,16	11	9,67	9,70	+ 0,03	6,73	6,40	- 0,33
28	2. 16,34	16,14	- 0,20				16	2. 10,42	10,48	+ 0,06	32. 11,01	9,20	- 1,81

April 17. The observation very uncertain.

Sept 17. The observed vertical diameter altogether discordant. See the note to the observation.

Day of Observation.	Interval by Observation.	Seconds of Tabular Interval.	Excess of Tabular Interval.	Vertical Diameter by Observation.	Seconds of Tabular Diameter.	Excess of Tabular Diam ^r .	Day of Observation.	Interval by Observation.	Seconds of Tabular Interval.	Excess of Tabular Interval.	Vertical Diameter by Observation.	Seconds of Tabular Diameter.	Excess of Tabular Diam ^r .
1851.	m. s.	s.	s.	" "	"	"	1851.	m. s.	s.	s.	" "	"	"
Oct. 22	2. 11,39	11,56	+ 0,17	32. 13,34	12,40	- 0,94	Nov. 18	2. 17,66	17,70	+ 0,04	32. 26,04	25,20	- 0,84
27	12,69	12,58	- 0,11	15,34	15,00	- 0,34	19	17,94	17,92	- 0,02	24,43	25,60	+ 1,17
31	13,46	13,46	0,00	15,67	17,00	+ 1,33	20	18,14	18,16	+ 0,02	25,81	26,00	+ 0,19
Nov. 1	13,84	13,70	- 0,14	17,09	17,60	+ 0,51	22	18,53	18,60	+ 0,07	26,13	26,60	+ 0,47
3	14,33	14,16	- 0,17	18,67	18,60	- 0,07	24				26,97	27,40	+ 0,43
5	14,69	14,62	- 0,07	18,95	19,60	+ 0,65	25	19,37	19,24	- 0,13	27,94	27,80	- 0,14
6				21,08	20,00	- 1,08	29	19,98	20,04	+ 0,06	30,21	29,20	- 1,01
10				20,73	22,00	+ 1,27	Dec. 4	20,77	20,90	+ 0,13	27,18	30,80	+ 3,62
11	16,08	16,06	- 0,02	26,68	22,40	- 4,28	8	21,56	21,48	- 0,08	31,24	31,80	+ 0,56
13	16,51	16,52	+ 0,01	24,95	23,20	- 1,75	11	21,87	21,82	- 0,05	33,53	32,40	- 1,13
14	16,85	16,76	- 0,09	25,09	23,60	- 1,49	12	21,90	21,92	+ 0,02	29,17	32,60	+ 3,43
15	16,82	17,00	+ 0,18	25,48	24,00	- 1,48	23	2. 22,60	22,46	- 0,14	32. 32,20	34,20	+ 2,00
17	2. 17,56	17,46	- 0,10	32. 25,56	24,80	- 0,76							

SIDEREAL INTERVALS OCCUPIED BY TRANSITS OF THE MOON'S DIAMETER; COMPARED WITH THE VALUES IN THE NAUTICAL ALMANAC.

Day of Observation.	Apparent Interval by Observation.	Correction for Defect of Illumination.	Tabular Interval.	Excess of Tabular Interval.	Calculated Excess of Tabular Diam ^r .
1851.	m. s.	s.	m. s.	s.	"
Feb. 15	2. 25,10	+ 0,02	2. 25,16	+ 0,04	+ 0,55
May 14	2. 16,24	+ 0,10	2. 16,46	+ 0,12	+ 1,69
July 12	2. 15,24	+ 0,14	2. 15,28	- 0,10	- 1,34
Dec. 8	2. 18,31	+ 0,22	2. 18,54	+ 0,01	+ 0,13

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF THE SUN.

Greenwich Mean Solar Time of Transit of Centre.	Limb Observed.	Reduction to Transit of Centre.	R.A. of Centre from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Limb Observed.	Parallax.	Assumed Semidiameter.	Geocentric N.P.D. of Centre from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d. h. m. s.		m. s.	h. m. s.	s.	s.		"	" "	° ' "	"	"
Jan. 4. 0. 4. 45,3	I.	1. 10,62	18. 59. 8,31	8,33	+ 0,02		8,40		112. 45. 38,47	38,60	+ 0,13
6. 0. 5. 39,5			19. 7. 55,77	55,65	- 0,12		8,39		112. 32. 21,49	18,92	- 2,57
8. 0. 6. 31,8			19. 16. 41,37	41,04	- 0,33						
9. 0. 6. 57,0			19. 21. 3,15	2,94	- 0,21		8,38		112. 8. 58,62	59,64	+ 1,02
17. 0. 9. 56,8			19. 55. 35,90	35,87	- 0,03		8,32		110. 48. 3,41	3,99	+ 0,58
18. 0. 10. 16,2			19. 59. 51,96	51,95	- 0,01		8,31		110. 36. 6,26	7,19	+ 0,93
21. 0. 11. 10,3			20. 12. 35,82	35,78	- 0,04		8,27		109. 57. 56,68	57,91	+ 1,23
22. 0. 11. 27,2			20. 16. 49,28	48,91	- 0,37		8,26		109. 44. 30,90	29,72	- 1,18
23. 0. 11. 42,8			20. 21. 1,51	1,29	- 0,22	N.	8,24	16. 16,00	109. 30. 42,01	39,42	- 2,59
24. 0. 11. 57,8			20. 25. 13,13	12,89	- 0,24		8,23		109. 16. 30,51	27,53	- 2,98
27. 0. 12. 38,1	II.	1. 8,68	20. 37. 43,17	43,00	- 0,17		8,20		108. 31. 44,65	45,65	+ 1,00
28. 0. 12. 50,1			20. 41. 51,75	51,45	- 0,30		8,18		108. 16. 9,53	10,85	+ 1,32
30. 0. 13. 11,3			20. 50. 6,14	5,94	- 0,20		8,16		107. 44. 2,06	2,46	+ 0,40

Greenwich Mean Solar Time of Transit of Centre.				Limb Observed.	Reduction to Transit of Centre.		R.A. of Centre from Observation.			Seconds of Tabular R.A.	Excess of Tabular R.A.	Limb Observed.	Parallax.	Assumed Semi- diameter.	Geocentric N.P.D. of Centre from Observation.			Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.	
d.	h.	m.	s.		m.	s.	h.	m.	s.	s.	s.		"	"	°	'	"	"	"	
Feb.	1.	0.	13.29,6				20.	58.	17,63	17,16	-0,47		8,12		107.	10.	38,87	38,37	-0,50	
	4.	0.	13.50,3				21.	10.	28,03	27,77	-0,26		8,07		106.	18.	16,10	17,28	+1,18	
	6.	0.	13.59,9				21.	18.	30,80	30,68	-0,12		8,04		105.	41.	58,11	58,29	+0,18	
	8.	0.	14.6,5				21.	26.	30,49	30,27	-0,22		8,00		105.	4.	33,42	35,20	+1,78	
	11.	0.	14.10,2				21.	38.	23,85	23,55	-0,30		7,93		104.	6.	37,94	38,11	+0,17	
	12.	0.	14.9,7				21.	42.	19,97	19,71	-0,26		7,91		103.	46.	51,20	50,72	-0,48	
	14.	0.	14.6,8	I.	1.	6,76	21.	50.	10,17	9,71	-0,46		7,87		103.	6.	34,83	35,82	+0,99	
	15.	0.	14.3,9				21.	54.	3,83	3,58	-0,25		7,84		102.	46.	8,96	9,13	+0,17	
	17.	0.	13.56,3				22.	1.	49,30	49,13	-0,17		7,79		102.	4.	40,40	39,33	-1,07	
	18.	0.	13.51,7				22.	5.	41,25	40,84	-0,41		7,77		101.	43.	35,00	37,04	+2,04	
	20.	0.	13.39,7				22.	13.	22,30	22,23	-0,07		7,72		101.	0.	59,36	59,64	+0,28	
	21.	0.	13.33,2				22.	17.	12,27	11,95	-0,32		7,69		100.	39.	23,11	25,24	+2,13	
	22.	0.	13.25,7				22.	21.	1,31	1,04	-0,27		7,66		100.	17.	41,96	40,95	-1,01	
	25.	0.	12.59,8	II.	1.	5,69	22.	32.	25,09	24,65	-0,44		7,58		99.	11.	30,65	32,75	+2,10	
	26.	0.	12.49,8				22.	36.	11,60	11,37	-0,23		7,55		98.	49.	12,86	12,85	-0,01	
	27.	0.	12.39,5				22.	39.	57,78	57,53	-0,25		7,52		98.	26.	44,33	45,06	+0,73	
Mar.	4.	0.	11.39,9				22.	58.	40,83	40,49	-0,34		7,36		96.	32.	41,50	42,47	+0,97	
	11.	0.	9.57,4									N.	7,10	16.	6,70	93.	49.	29,21	25,87	(-3,34)
	13.	0.	9.24,8				23.	31.	54,25	53,90	-0,35		7,06		93.	2.	16,75	17,07	+0,32	
	20.	0.	7.22,3				23.	57.	27,34	27,12	-0,22		6,80		90.	16.	33,00	34,47	+1,47	
	21.	0.	7.4,2				0.	1.	5,70	5,45	-0,25		6,76		89.	52.	51,71	53,37	+1,66	
	28.	0.	4.55,3				0.	26.	32,36	32,06	-0,30		6,49		87.	7.	48,21	49,27	+1,06	
	29.	0.	4.36,8				0.	30.	10,30	10,14	-0,16		6,45		86.	44.	23,50	24,87	+1,37	
Apr.	1.	0.	3.42,1	II.	1.	4,41	0.	41.	5,17	4,77	-0,40		6,33		85.	34.	34,20	34,97	+0,77	
	8.	0.	1.38,3				1.	6.	36,83	36,51	-0,32	S.	6,06	15.	59,00	82.	54.	42,18	42,75	+0,57
	16.	23.	59.15,3	II.	1.	5,01	1.	39.	42,44	42,30	-0,14		5,67		79.	38.	4,44	9,83	(+5,39)	
	18.	23.	58.47,6				1.	47.	7,76	7,32	-0,44		5,58		78.	56.	12,64	13,53	+0,89	
	20.	23.	58.21,1				1.	54.	34,30	34,02	-0,28		5,50		78.	14.	59,62	60,52	+0,90	
	22.	23.	57.56,7				2.	2.	3,00	2,53	-0,47		5,42		77.	34.	32,63	33,32	+0,69	
	23.	23.	57.44,5	I.	1.	5,44	2.	5.	47,31	47,49	+0,18	S.	5,42	15.	54,80	77.	14.	37,47	37,71	+0,24
	27.	23.	57.4,0	II.	1.	5,72	2.	20.	52,92	52,31	-0,61		5,23		75.	57.	2,71	3,10	+0,39	
	28.	23.	56.54,5	II.	1.	5,80	2.	24.	39,89	39,81	-0,08	N.	5,16	15.	53,60	75.	38.	12,94	12,99	+0,05
	29.	23.	56.46,1				2.	28.	28,06	27,83	-0,23		5,15		75.	19.	38,21	36,99	-1,22	
May	6.	23.	56.1,2	II.	1.	6,43	2.	55.	18,93	19,02	+0,09		4,90		73.	16.	29,77	27,96	-1,81	
	7.	23.	55.57,2				2.	59.	11,42	11,37	-0,05		4,87		72.	59.	55,63	56,76	+1,13	
	9.	23.	55.50,6				3.	6.	57,98	57,72	-0,26		4,80		72.	27.	44,93	45,85	+0,92	
	13.	23.	55.44,0				3.	22.	37,50	37,20	-0,30		4,67		71.	26.	59,16	57,73	-1,43	
	15.	23.	55.43,9				3.	30.	30,59	30,34	-0,25		4,61		70.	58.	24,06	24,92	+0,86	
	18.	23.	55.48,1				3.	42.	24,43	24,35	-0,08		4,52		70.	17.	59,78	60,90	+1,12	
	22.	23.	56.1,8	II.	1.	7,71	3.	58.	24,38	24,30	-0,08	S.	4,45	15.	48,60	69.	28.	48,65	50,08	+1,43
	23.	23.	56.6,8				4.	2.	25,93	25,68	-0,25		4,40		69.	17.	23,10	24,18	+1,08	
	25.	23.	56.17,9				4.	10.	30,20	30,01	-0,19		4,35		68.	55.	37,65	36,36	-1,29	
	27.	23.	56.31,1				4.	18.	36,52	36,37	-0,15	S.	4,33	15.	47,80	68.	35.	15,43	15,25	-0,18
June	1.	23.	57.12,0				4.	39.	0,38	0,29	-0,09		4,21		67.	50.	54,08	53,92	-0,16	
	3.	23.	57.31,1				4.	47.	12,65	12,67	+0,02	S.	4,20	15.	46,80	67.	35.	50,92	50,21	-0,71
	8.	23.	58.24,7										4,11		67.	5.	5,33	4,78	-0,55	
	10.	23.	58.48,0										4,08		66.	55.	37,36	34,97	-2,39	
	13.	23.	59.24,3				5.	28.	31,74	31,89	+0,15		4,06		66.	44.	26,11	23,35	-2,76	
	15.	23.	59.49,8	II.	1.	8,87	5.	36.	50,39	50,15	-0,24		4,05		66.	38.	59,27	58,33	-0,94	
	17.	0.	0.2,4	II.	1.	8,88	5.	40.	59,62	59,46	-0,16		4,04		66.	36.	53,72	52,83	-0,89	
	19.	0.	0.28,2				5.	49.	18,60	18,36	-0,24		4,04		66.	33.	55,02	56,01	+0,99	
	21.	0.	0.54,0				5.	57.	37,55	37,48	-0,07		4,03		66.	32.	37,75	38,20	+0,45	
	24.	0.	1.33,0				6.	10.	6,35	6,15	-0,20		4,03		66.	33.	47,22	47,38	+0,16	
	25.	0.	1.46,0				6.	14.	15,93	15,61	-0,32		4,04		66.	34.	60,67	59,97	-0,70	
	26.	0.	1.58,7				6.	18.	25,20	24,98	-0,22		4,04		66.	36.	37,88	37,27	-0,61	
	27.	0.	2.11,1				6.	22.	34,21	34,22	+0,01		4,04		66.	38.	40,87	39,26	-1,61	
	28.	0.	2.23,9				6.	26.	43,56	43,32	-0,24		4,05		66.	41.	6,90	5,86	-1,04	
	30.	0.	2.48,3				6.	35.	1,21	0,98	-0,23		4,06		66.	47.	15,62	12,64	-2,98	
July	2.	0.	3.11,8				6.	43.	17,86	17,72	-0,14									
	3.	0.	3.22,9				6.	47.	25,60	25,68	+0,08		4,09		66.	59.	29,06	25,72	-3,34	
	4.	0.	3.34,0				6.	51.	33,24	33,34	+0,10		4,10		67.	4.	21,30	18,42	-2,88	
	5.	0.	3.45,0				6.	55.	40,82	40,67	-0,15		4,11		67.	9.	36,89	35,11	-1,78	
	16.	0.	5.16,5									S.	4,32	15.	45,50	68.	33.	20,02	17,14	-2,88
	17.	0.	5.22,4	II.	1.	7,84	7.	44.	37,14	36,86	-0,28		4,31		68.	43.	9,69	8,94	-0,75	
	18.	0.	5.27,4				7.	48.	38,75	38,50	-0,25		4,33		68.	53.	24,40	22,43	-1,97	
	21.	0.	5.39,5				8.	0.	40,55	40,34	-0,21		4,40		69.	26.	11,03	10,72	-0,31	
	22.	0.	5.42,5				8.	4.	40,17	39,88	-0,29	N.	4,39	15.	45,90	69.	37.	52,52	48,61	-3,91
	25.	0.	5.48,1				8.	16.	35,36	35,17	-0,19		4,50		70.	14.	47,25	44,69	-2,56	
	29.	0.	5.47,5	II.	1.	6,87	8.	32.	20,97	20,81	-0,16		4,62		71.	8.	36,56	34,87	-1,69	
Aug.	2.	0.	5.37,1				8.	47.	56,80	56,75	-0,05		4,74		72.	7.	24,83	23,36	-1,47	

Greenwich Mean Solar Time of Transit of Centre.				Limb Observed.	Reduction to Transit of Centre.		R.A. of Centre from Observation.			Seconds of Tabular R.A.	Excess of Tabular R.A.	Limb Observed.	Parallax.	Assumed Semi- diameter.	Geocentric N.P.D. of Centre from Observation.			Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d.	h.	m.	s.		m.	s.	h.	m.	s.	s.	s.		"	"	"	"	"	"	
Aug.	4.	0.	5.28,3	I.	1.	6,34	8.55.	41,06	41,00	-0,06			4,80			72.38.36,63	33,65	-2,98	
	6.	0.	5.17,0	II.	1.	6,17	9. 3.	22,86	22,76	-0,10	N.	4,84	15.47,70			73.10.56,45	51,44	(-5,01)	
	7.	0.	5.10,4				9. 7.	12,86	12,71	-0,15		4,90				73.27.26,70	24,83	-1,87	
	8.	0.	5. 3,2	I.	1.	6,00	9.11.	2,13	2,05	-0,08	N.	4,91	15.48,00			73.44.15,72	14,13	-1,59	
	11.	0.	4.38,0				9.22.	26,56	26,53	-0,03		5,04				74.36.16,19	15,12	-1,07	
	12.	0.	4.28,5				9.26.	13,55	13,53	-0,02		5,08				74.54. 5,93	5,31	-0,62	
	19.	0.	3. 7,0				9.52.	27,76	27,62	-0,14		5,34				77. 5.28,15	25,39	-2,76	
	20.	0.	2.53,3				9.56.	10,55	10,50	-0,05		5,38				77.25. 5,68	3,09	-2,59	
	21.	0.	2.39,2				9.59.	53,01	52,93	-0,08		5,42				77.44.55,25	52,88	-2,37	
	22.	0.	2.24,7				10. 3.	34,96	34,91	-0,05		5,46				78. 4.56,00	54,28	-1,72	
Sept.	25.	0.	1.38,5				10.14.	38,27	38,25	-0,02		5,57				79. 6. 7,76	5,87	-1,89	
	29.	0.	0.31,4	II.	1.	4,51	10.29.	17,25	17,04	-0,21	N.	5,70	15.51,90			80.30. 5,13	5,86	+0,73	
	1.	23.	59.18,2	II.	1.	4,32	10.43.	50,02	50,06	+0,04		5,90				81.56.32,08	31,05	-1,03	
	4.	23.	58.20,3				10.54.	41,69	41,57	-0,12	N.	5,99	15.53,60			83. 2.44,73	42,25	-2,48	
	5.	23.	58. 0,3	I.	1.	4,17	10.58.	18,15	18,21	+0,06									
	9.	23.	56.39,0				11.12.	42,83	42,71	-0,12		6,22				84.55.13,08	11,44	-1,64	
	10.	23.	56.18,1				11.16.	18,48	18,43	-0,05		6,26				85.17.59,49	58,04	-1,45	
	11.	23.	55.57,3				11.19.	54,10	54,03	-0,07		6,30				85.40.49,28	49,54	+0,26	
	12.	23.	55.36,2				11.23.	29,50	29,54	+0,04		6,34				86. 3.46,95	45,64	-1,31	
	16.	23.	54.11,5				11.37.	50,80	51,06	(+0,26)		6,50				87.36. 3,82	8,93	(+5,11)	
Oct.	17.	23.	53.50,7				11.41.	26,50	26,43	-0,07		6,54				87.59.24,65	23,03	-1,62	
	19.	23.	53. 8,6				11.48.	37,35	37,30	-0,05		6,61				88.46. 1,13	58,93	-2,20	
	21.	23.	52.26,9				11.55.	48,67	48,46	-0,21		6,69				89.32.45,65	42,63	-3,02	
	22.	23.	52. 5,9				11.59.	24,17	24,18	+0,01		6,73				89.56. 9,85	6,63	-3,22	
	5.	23.	47.53,8				12.46.	26,54	26,47	-0,07		7,19				94.59.31,08	28,44	-2,64	
	7.	23.	47.19,3				12.53.	45,06	45,10	+0,04		7,26				95.45.33,77	31,14	-2,63	
	9.	23.	46.46,7				13. 1.	5,49	5,42	-0,07		7,32				96.31.16,78	15,84	-0,94	
	10.	23.	46.31,2				13. 4.	46,47	46,26	-0,21		7,35				96.54. 1,24	0,54	-0,70	
	13.	23.	45.47,1	II.	1.	5,08	13.15.	51,91	51,79	-0,12									
	15.	23.	45.20,4				13.23.	18,26	18,20	-0,06		7,50				98.46.14,92	13,35	-1,57	
Nov.	16.	23.	45. 7,9	I.	1.	5,32	13.27.	2,27	2,27	0,00	S.	7,55	16. 4,80			99. 8.20,08	19,25	-0,83	
	21.	23.	44.14,7				13.45.	51,73	52,14	(+0,41)		7,67				100.56.46,07	44,76	-1,31	
	26.	23.	43.39,6				14. 4.	59,33	59,00	-0,33		7,80				102.41. 9,14	6,48	-2,66	
	30.	23.	43.23,6				14.20.	29,50	29,64	+0,14		7,89				104. 1. 7,08	5,09	-1,99	
	31.	23.	43.21,9				14.24.	24,32	24,20	-0,12		7,91				104.20.34,26	31,90	-2,36	
	2.	23.	43.19,8				14.32.	15,34	15,63	+0,34		7,95				104.58.45,18	43,40	-1,78	
	4.	23.	43.21,5				14.40.	10,13	10,34	+0,21		7,99				105.36.57,83	55,81	-2,02	
	5.	23.	43.23,7	II.	1.	7,43	14.44.	8,85	8,89	+0,04		8,01				105.54.10,92	8,82	-2,10	
	7.	23.	43.30,5	II.	1.	7,67	14.52.	8,80	8,50	-0,30	N.	8,03	16.10,50			106.29.47,41	46,82	-0,59	
	9.	23.	43.40,1	II.	1.	7,91	15. 0.	11,52	11,47	-0,05		8,08				107. 4.18,99	17,83	-1,16	
Dec.	10.	23.	43.46,3				15. 4.	14,32	14,24	-0,08		8,10				107.21. 8,20	7,34	-0,86	
	12.	23.	44. 1,0				15.12.	22,20	22,34	+0,14		8,13				107.53.52,42	52,35	-0,07	
	13.	23.	44.10,1				15.16.	27,90	27,71	-0,19		8,15				108. 9.48,55	47,05	-1,50	
	14.	23.	44.19,6				15.20.	33,92	33,94	+0,02		8,16				108.25.25,49	22,76	-2,73	
	16.	23.	44.41,6				15.28.	49,15	49,01	-0,14		8,19				108.55.38,50	35,67	-2,83	
	17.	23.	44.53,7				15.32.	57,79	57,83	+0,04		8,21				109.10.13,06	11,97	-1,09	
	18.	23.	45. 6,9				15.37.	7,62	7,49	-0,13		8,22				109.24.27,95	27,78	-0,17	
	19.	23.	45.20,7				15.41.	18,01	17,99	-0,02		8,23				109.38.23,68	22,59	-1,09	
	21.	23.	45.51,1				15.49.	41,61	41,48	-0,13		8,25				110. 5. 7,50	7,80	+0,30	
	23.	23.	46.24,7	II.	1.	9,52	15.58.	8,35	8,18	-0,17		8,28				110.30.23,68	24,71	+1,03	
Dec.	24.	23.	46.42,5				16. 2.	22,79	22,69	-0,10		8,29				110.42.30,25	29,12	-1,13	
	28.	23.	48. 1,2				16.19.	27,96	28,05	+0,09		8,33				111.26.53,41	51,34	-2,07	
	3.	23.	49.55,1				16.41.	4,89	4,70	-0,19		8,36				112.13. 5,41	5,57	+0,16	
	7.	23.	51.36,2				16.58.	32,49	32,37	-0,12		8,39				112.42.19,27	20,70	+1,43	
	10.	23.	52.57,2				17.11.	43,48	43,21	-0,27		8,40				112.59.39,41	36,72	-2,69	
	11.	23.	53.25,0				17.16.	7,82	7,66	-0,16		8,41				113. 4.26,68	27,73	+1,05	
22.	23.	53.48,6				18. 4.	54,53	54,31	-0,22		8,43				113.27.11,56	10,41	-1,15		

Feb. 1. The correction +0',20 was applied to B's observation for difference of personal equation of B and T.

April 23, April 24, May 7, June 14, July 3, and Oct. 22. No accompanying Clock-stars.

May 23. The circle observation as recorded was 1' in error.

The Tabular Errors in brackets are not used in the calculation of the position of the Ecliptic, that of March 11 being rejected to reduce the Circle observations of single Limbs to an even number, and the rest being considered too discordant.

Greenwich Mean Solar Time of Transit of Centre.				Limb Observed.	Reduction to Transit of Centre.	R.A. of Centre from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Limb Observed.	Parallax.	Assumed Semidiameter.	Geocentric N.P.D. of Centre from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d.	h.	m.	s.		m.	s.	h.	m.	s.		"	"	"	"
Jan.	6.	3.14.	7.1	I.	1. 2,64	22. 16. 54,36	54,36	0,00	S.	49. 21,16	14. 45,41	103. 8. 57,73	55,93	- 1,80
	9.	5.22.	19,7	I.	1. 1,95	0. 37. 17,72	17,68	- 0,04	S.	44. 23,62	14. 59,95	91. 4. 48,82	47,60	- 1,22
	14.	9.24.	46,5						S.	33. 13,14	16. 11,08	71. 19. 31,50	15,37	(- 16,13)
	18.	13.30.	14,8	II.	1. 12,85	9. 22. 1,92	3,42	+ 1,50	S.	36. 7,93	16. 42,33	73. 23. 50,56	46,60	- 3,96
Feb.	6.	4. 2.20,1		I.	1. 1,86	1. 7. 28,48	28,36	- 0,12	S.	42. 38,25	14. 58,26	88. 13. 18,21	17,29	- 0,92
	8.	5.30.	51,8	I.	1. 4,52	2. 44. 7,81	7,88	+ 0,07	S.	37. 50,85	15. 19,69	79. 36. 16,77	17,36	+ 0,59
	11.	8. 5.42,9		I.	1. 11,36	5. 31. 14,01	14,61	+ 0,60	S.	32. 7,92	16. 6,20	70. 16. 7,61	5,62	- 1,99
	14.	11. 7.58,7		I.	1. 13,72	8. 45. 49,45	50,54	+ 1,09	N.	34. 9,59	16. 43,77	71. 39. 33,40	30,68	- 2,72
				I.		9. 50. 45,35	46,58	+ 1,25	N.					
	15.	12. 8.48,0		II.	1. 12,58	9. 50. 45,29	46,58	+ 1,29	N.	37. 18,72	16. 47,39	75. 5. 32,74	29,76	- 2,98
Mar.	11.	6.51.	33,4	I.	1. 11,16	6. 7. 15,88	16,28	+ 0,40	N.	30. 35,97	15. 58,24	69. 21. 23,34	20,86	- 2,48
	13.	8.49.	17,8	I.	1. 12,84	8. 13. 12,67	13,50	+ 0,83	N.	32. 23,63	16. 25,38	70. 22. 49,98	44,42	- 5,56
	14.	9.49.	0,7	I.	1. 12,43	9. 17. 1,97	2,90	+ 0,93	N.	35. 7,41	16. 35,55	73. 4. 11,62	8,50	- 3,12
	18.	13.33.	6,4	II.	1. 8,52	13. 17. 30,70	31,55	+ 0,85	S.	49. 51,17	16. 27,35	92. 52. 28,30	24,06	- 4,24
Apr.	9.	6.39.	39,1	I.	1. 11,70	7. 49. 39,64	40,49	+ 0,85	N.	30. 59,55	16. 5,81	69. 31. 30,78	28,17	- 2,61
	11.	8.34.	18,0	I.	1. 10,75	9. 52. 30,42	31,46	+ 1,04	N.	36. 20,53	16. 23,65	74. 59. 34,53	31,26	- 3,27
	12.	9.29.	57,3	I.	1. 9,82	10. 52. 15,43	16,28	+ 0,85	N.	40. 9,91	16. 28,82	79. 24. 61,60	58,10	- 3,50
	15.	12.10.	16,2	II.	1. 8,30	13. 44. 50,31	50,93	+ 0,62	N.	50. 43,45	16. 21,10	95. 30. 21,19	17,58	- 3,61
	17.	13.55.	54,0	II.	1. 8,64	15. 38. 38,61	39,15	+ 0,54	S.	54. 3,30	15. 57,31	104. 48. 24,13	20,08	- 4,05
May	8.	6.28.	34,9						N.	34. 37,11	16. 10,55	73. 31. 15,82	12,56	- 3,26
	9.	7.23.	8,2	I.	1. 9,20	10. 31. 32,49	33,45	+ 0,96	N.	38. 5,37	16. 14,50	77. 32. 22,10	18,77	- 3,33
	13.	10.50.	35,3	I.	1. 7,74	14. 15. 19,82	20,30	+ 0,48	N.	51. 29,62	16. 8,00	98. 15. 33,93	32,17	- 1,76
	14.	11.42.	40,0	I.	1. 8,23	15. 11. 29,63	30,10	+ 0,47	N.	53. 12,87	15. 59,77	102. 55. 34,96	32,53	- 2,43
				II.		15. 11. 29,51	30,10	+ 0,59						
	15.	12.35.	35,0	II.	1. 8,73	16. 8. 29,93	30,44	+ 0,51	N.	54. 7,49	15. 49,37	106. 45. 35,88	35,14	- 0,74
July	2.	3.13.	56,4	I.	1. 10,88	9. 54. 33,83	35,94	(+ 2,11)						
	4.	5. 1.41,0		I.	1. 7,88	11. 50. 29,22	30,34	+ 1,12	N.	43. 4,69	16. 14,99	84. 2. 28,18	28,72	+ 0,54
	5.	5.52.	23,5	I.	1. 6,95	12. 45. 16,58	17,14	+ 0,56	N.	46. 22,87	16. 7,86	89. 22. 10,37	9,03	- 1,34
	10.	10. 4.44,6		I.	1. 8,18	17. 18. 1,92	2,14	+ 0,22	N.	53. 45,38	15. 24,93	109. 58. 3,10	4,34	+ 1,24
				I.		19. 10. 41,26	41,53	+ 0,27	N.					
	12.	11.49.	13,6	II.	1. 7,64	19. 10. 41,36	41,53	+ 0,17	N.	53. 14,68	15. 8,70	111. 32. 7,24	6,77	- 0,47
Aug.	2.	4.38.	21,2	I.	1. 7,39	13. 21. 25,74	26,86	+ 1,12	N.	48. 48,79	16. 12,60	92. 56. 4,15	7,51	+ 3,36
	5.	7. 9.51,0		I.	1. 7,60	16. 5. 10,05	10,30	+ 0,25	N.	53. 17,23	15. 36,40	106. 29. 31,47	30,34	- 1,13
	7.	8.52.	58,8	I.	1. 7,96	17. 56. 27,88	27,99	+ 0,11	N.	53. 32,06	15. 15,93	111. 2. 12,20	15,11	+ 2,91
	20.	18.49.	11,8	II.	1. 8,37	4. 45. 34,06	34,78	+ 0,72	N.	31. 29,20	15. 34,88	71. 16. 70,46	55,17	(- 15,29)
Sept.	3.	6.49.	26,3	I.	1. 8,35	17. 39. 2,11	2,61	+ 0,50	N.	53. 51,52	15. 22,87	110. 44. 26,65	27,37	+ 0,72
	8.	10.54.	51,9	I.	1. 3,17	22. 4. 50,78	50,91	+ 0,13	S.	49. 59,87	14. 46,38	104. 44. 45,35	47,53	+ 2,18
	9.	11.38.	38,5	I.	1. 2,05	22. 52. 41,16	41,43	+ 0,27	S.	48. 28,40	14. 44,52	101. 3. 38,98	38,93	- 0,05
	10.	12.21.	1,3	II.	1. 1,27	23. 39. 7,40	8,05	+ 0,65	S.	46. 37,24	14. 44,15	96. 55. 43,08	40,98	- 2,10
	11.	13. 2.34,5		II.	1. 0,95	0. 24. 43,97	44,52	+ 0,55	N.	44. 10,94	14. 45,35	92. 30. 63,85	58,56	- 5,29
	12.	13.43.	57,5	II.	1. 1,12	1. 10. 10,36	10,89	+ 0,53	N.	41. 42,74	14. 48,17	87. 59. 18,93	17,20	- 1,73
Oct.	2.	6.27.	54,8	I.	1. 8,00	19. 11. 47,07	47,45	+ 0,38	S.	53. 37,86	15. 11,67	111. 50. 7,27	4,93	- 2,34
	7.	10.19.	45,5	I.	1. 1,53	23. 23. 58,61	59,12	+ 0,51	S.	47. 19,51	14. 44,77	98. 22. 38,34	35,12	- 3,22
	8.	11. 1.29,3		I.	1. 1,07	0. 9. 45,86	46,48	+ 0,62	S.	45. 15,13	14. 45,81	93. 59. 29,25	24,77	- 4,48
	10.	12.24.	49,5	II.	1. 1,65	1. 41. 12,80	13,79	+ 0,99	S.	40. 14,71	14. 52,32	84. 50. 13,75	5,20	- 8,55
Nov.	1.	6.49.	12,2	I.	1. 4,65	21. 31. 24,53	24,75	+ 0,22	S.	51. 20,42	14. 54,68	107. 18. 18,86	21,86	+ 3,00
	3.	8.17.	25,3	I.	1. 1,97	23. 7. 45,23	45,75	+ 0,52	S.	48. 9,80	14. 46,73	100. 2. 5,04	4,63	- 0,41
	4.	8.59.	19,0	I.	1. 1,30	23. 53. 42,41	43,00	+ 0,59	S.	46. 10,56	14. 46,81	95. 43. 4,28	2,93	- 1,35
	6.	10.22.	24,2	I.	1. 1,58	1. 24. 54,39	55,00	+ 0,61	S.	41. 20,60	14. 53,33	86. 29. 42,58	37,71	- 4,87
	10.	13.26.	21,5	II.	1. 7,55	4. 45. 8,14	9,15	+ 1,01	N.	30. 32,15	15. 21,03	70. 42. 23,12	19,39	- 3,73
	16.	18.53.	46,5	II.	1. 9,05	10. 37. 6,20	7,41	+ 1,21	S.	38. 8,71	16. 11,49	77. 12. 53,65	55,09	+ 1,44
	29.	5.28.	52,4						S.	50. 51,59	14. 56,19	105. 36. 16,82	18,39	+ 1,57
Dec.	2.	7.36.	54,3	I.	1. 1,21	0. 21. 27,75	28,04	+ 0,29	S.	44. 57,74	14. 48,80	93. 8. 43,62	40,56	- 3,06
				I.		5. 20. 32,69	33,74	+ 1,05						
	8.	12.11.	34,8	II.	1. 9,27	5. 20. 32,68	33,74	+ 1,06	S.	30. 7,04	15. 33,68	69. 11. 44,90	39,13	- 5,77
	9.	13. 6.40,7		II.	1. 10,72	6. 19. 44,24	45,45	+ 1,21	S.	29. 10,81	15. 42,61	67. 46. 41,40	39,12	- 2,28
	29.	5.32.	4,2	I.	1. 1,34	0. 2. 44,23	44,38	+ 0,15						

The corrections applied for defect of Illumination are +0°.02 to 2 L. on Feb. 15, +0°.10 to 2 L. on May 14, +0°.14 to 2 L. and -0°.03 to N.L. on July 12, and -0°.22 to 1 L. on Dec. 8. The S.L. was ascertained by calculation to be full on April 17.

Jan. 14. The observation was very doubtful.

July 2. At three wires under bad circumstances: perhaps an error of 1° in the observation.

Aug. 20. See the note to the Circle observation.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF METIS.

Greenwich Mean Solar Time of Transit				Number of wires.	R.A. from Observation.			Seconds of Tabular R.A.	Excess of Tabular R.A.	Parallax.	Geocentric N.P.D. from Observation.			Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d.	h.	m.	s.		h.	m.	s.				°	'	"		
Jan.	22.	13.	45.15,6							3,31	67.42.11,75			16,21	+4,46
	23.	13.	40.30,9	7	9.52.		2,47	58,94	-3,53	3,30	67.35.5,26			10,31	+5,05
	24.	13.	35.44,6	3	9.51.		12,01	8,47	-3,54	3,30	67.27.56,87			64,41	+7,54
	27.	13.	21.18,0	6	9.48.		32,63	29,00	-3,63	3,28	67.6.46,15			53,71	+7,56
	28.	13.	16.26,1	5	9.47.		36,48	33,40	-3,08	3,27	66.59.49,54			54,81	+5,27
Feb.	4.	12.	42.1,8	4	9.40.		42,41	38,58	-3,83	3,20	66.13.6,57			12,90	+6,33
	5.	12.	37.3,9	5	9.39.		40,32	36,77	-3,55	3,19	66.6.54,38			58,40	+4,02
	6.	12.	32.6,0	7	9.38.		38,10	34,61	-3,49	3,18	66.0.47,93			52,10	+4,17
	8.	12.	22.9,4	5	9.36.		33,03	29,64	-3,39	3,15	65.48.58,76			66,19	+7,43
	15.	11.	47.25,3	7	9.29.		19,11	15,67	-3,44	3,05	65.13.11,77			18,27	+6,50
	24.	11.	3.31,8	3	9.20.		47,35	44,04	-3,31	2,91	64.41.37,41			44,40	+7,03
	26.	10.	53.59,2	3	9.19.		6,27	2,84	-3,43	2,88	64.37.3,23			7,03	+3,80
Mar.	1.	10.	39.50,8	5	9.16.		45,18	41,82	-3,36						
	4.	10.	25.57,0	7	9.14.		38,76	35,45	-3,31	2,78	64.28.25,57			32,80	+7,23
	6.	10.	16.49,7	7	9.13.		23,10	19,93	-3,17	2,75	64.27.18,89			25,43	+6,54
	11.	9.	54.34,3	7	9.10.		46,82	43,76	-3,06	2,67	64.28.10,68			14,03	+3,35
	18.	9.	24.46,6	4	9.8.		30,07	26,88	-3,19	2,57	64.37.14,43			24,55	+10,12
	20.	9.	16.33,1	7	9.8.		8,38	5,52	-2,86	2,54	64.41.28,12			36,34	+8,22
	21.	9.	12.29,3	6	9.8.		0,41	57,78	-2,63	2,53	64.43.54,09			57,03	+2,94
	22.	9.	8.28,0	7	9.7.		55,00	51,99	-3,01	2,52	64.46.20,33			27,16	+6,83
	28.	8.	44.58,2	6	9.8.		0,67	57,72	-2,95	2,44	65.4.28,87			38,58	+9,71
Apr.	5.	8.	15.21,8	6	9.9.		51,82	49,24	-2,58	2,35	65.36.26,42			33,88	+7,46
	11.	7.	54.20,9	6	9.12.		26,83	24,81	-2,02						
	12.	7.	50.56,9	7	9.12.		58,78	56,25	-2,53	2,28	66.10.28,02			42,45	(+14,43)

April 12. The Planet had become very faint.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF IRIS.

Sept.	11.	12.	41.27,8	7	0.3.		33,79	35,18	+1,39	5,69	77.37.8,27			3,76	-4,51
	12.	12.	36.49,0	5	0.2.		50,85	52,27	+1,42	5,72	77.39.46,33			41,66	-4,67
	13.	12.	32.9,5	7	0.2.		7,07	8,32	+1,25	5,75	77.42.42,45			36,45	-6,00
	15.	12.	22.47,0	7	0.0.		36,14	37,60	+1,46	5,81	77.49.21,28			16,24	-5,04
	19.	12.	3.53,5	7	23.57.		25,77	27,10	+1,33	5,93	78.5.57,99			50,43	-7,56
	22.	11.	49.38,0	5	23.54.		57,63	59,08	+1,35	6,01	78.20.61,92			55,91	-6,01
Oct.	2.	11.	2.11,4	7	23.46.		48,77	50,36	+1,59	6,21	79.24.37,69			31,49	-6,20
	3.	10.	57.29,7	5	23.46.		2,85	4,49	+1,64	6,22	79.31.50,31			43,29	-7,02
	4.	10.	52.48,9	7	23.45.		17,76	19,54	+1,78	6,23	79.39.9,11			1,18	-7,93
	7.	10.	38.53,2	7	23.43.		9,49	11,15	+1,66	6,26	80.1.30,04			23,98	-6,06
	8.	10.	34.17,1	7	23.42.		29,15	30,77	+1,62	6,27	80.9.5,15			58,58	-6,57
	10.	10.	25.8,9	7	23.41.		12,56	14,09	+1,53	6,28	80.24.20,89			13,88	-6,51
	11.	10.	20.36,9	7	23.40.		36,36	37,92	+1,56	6,28	80.31.58,44			53,08	-5,36
	14.	10.	7.10,8	4	23.38.		57,70	58,89	+1,19	6,28	80.54.52,88			47,78	-5,10
Nov.	1.	8.	52.39,0	4	23.35.		11,61	12,49	+0,88						
	3.	8.	45.5,4	7	23.35.		29,89	30,78	+0,89	5,97	83.5.27,39			25,15	-2,24
	4.	8.	41.21,9	7	23.35.		42,33	43,25	+0,92	5,95	83.10.14,30			10,82	-3,48
	14.	8.	6.4,9							5,64	83.45.46,12			42,47	-3,65
	18.	7.	52.57,7	4	23.42.		21,01	21,55	+0,54	5,50	83.53.34,97			32,33	-2,64
	20.	7.	46.33,7	5	23.43.		50,01	50,83	+0,82	5,43	83.56.4,73			3,70	-1,03
	21.	7.	43.25,2	2	23.44.		37,60	38,31	+0,71	5,39	83.56.57,21			58,62	+1,41
	24.	7.	34.10,7	7	23.47.		11,19	11,92	+0,73	5,28	83.58.27,17			20,25	-6,92
	25.	7.	31.9,3	7	23.48.		5,91	6,74	+0,83	5,24	83.58.20,99			20,04	-0,95
Dec.	11.	6.	46.28,9	7	0.6.		23,04	23,40	+0,36	4,64	83.29.8,24			7,60	-0,64
	17.	6.	31.15,2	7	0.14.		46,25	46,68	+0,43						
	23.	6.	16.43,7	4	0.23.		51,71	52,30	+0,59						

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF HEBE.

Greenwich Mean Solar Time of Transit.	Number of wires.	R.A. from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Parallax.	Geocentric N.P.D. from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d. h. m. s.		h. m. s.	s.	s.	"	° ' "	"	"
June 19. 13. 46. 31,8	7	19. 37. 37,84						
24. 13. 23. 30,4	7	19. 34. 15,43	14,37	- 1,06	5,35	97. 19. 39,67	37,03	- 2,64
25. 13. 18. 49,9	7	19. 33. 30,79	29,78	- 1,01	5,38	97. 24. 15,50	13,23	- 2,27
28. 13. 4. 41,5	7	19. 31. 9,74	8,68	- 1,06	5,47	97. 39. 27,38	23,11	- 4,27
30. 12. 55. 9,9	2	19. 29. 29,63	29,02	- 0,61				
July 4. 12. 35. 56,3	7	19. 25. 59,17	58,31	- 0,86	5,61	98. 15. 46,41	41,39	- 5,02
5. 12. 31. 6,2	5	19. 25. 4,82	3,64	- 1,18	5,66	98. 22. 32,87	29,39	- 3,48
10. 12. 6. 45,3	7	19. 20. 22,67	21,68	- 0,99	5,77	98. 59. 34,51	29,58	- 4,93
12. 11. 56. 58,3	7	19. 18. 27,21	26,18	- 1,03				
18. 11. 27. 35,6	7	19. 12. 39,02	37,93	- 1,09	5,90	100. 7. 59,15	54,36	- 4,79
21. 11. 12. 56,9	7	19. 9. 47,59	46,56	- 1,03	5,93	100. 36. 2,14	58,35	- 3,79

June 30. The rate of the clock was doubtful.

The object observed for Hebe with the Transit on Sept. 3 was proved by calculation not to be the Planet.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF PARTHENOPE.

Oct. 8. 12. 58. 34,2	5	2. 7. 10,00	18,11	+ 8,11				
10. 12. 49. 3,0	4	2. 5. 30,30	38,57	+ 8,27				
15. 12. 25. 2,0	5	2. 1. 8,09	16,07	+ 7,98				
16. 12. 20. 12,0	5	2. 0. 13,90	21,78	+ 7,88	4,70	86. 9. 7,58	51,60	- 15,98
24. 11. 41. 23,3	3	1. 52. 51,28	58,85	+ 7,57				
Nov. 4. 10. 48. 30,8	7	1. 43. 12,12	18,64	+ 6,52	4,65	87. 37. 38,02	28,69	- 9,33
12. 10. 11. 11,0	3	1. 37. 18,65	24,71	+ 6,06				
14. 10. 2. 4,2	5	1. 36. 3,48	8,86	+ 5,38	4,48	88. 1. 23,89	11,94	- 11,95
15. 9. 57. 32,6	5	1. 35. 27,65	33,05	+ 5,40	4,46	88. 2. 40,27	30,63	- 9,64
20. 9. 35. 21,6					4,34	88. 6. 10,61	4,44	- 6,17
22. 9. 26. 33,4	6	1. 31. 59,27	64,77	+ 5,50	4,29	88. 6. 13,64	6,13	- 7,51
24. 9. 17. 56,5	4	1. 31. 14,12	19,67	+ 5,55	4,24	88. 5. 15,61	19,80	(+ 4,19)
25. 9. 13. 41,1	6	1. 30. 54,51	59,63	+ 5,12	4,21	88. 4. 43,00	38,78	- 4,22
26. 9. 9. 26,9	7	1. 30. 36,17	41,26	+ 5,09	4,19	88. 4. 3,20	45,99	(- 17,21)
Dec. 11. 8. 9. 15,2	2	1. 29. 22,94	28,06	+ 5,12	3,76	87. 28. 40,12	31,75	- 8,37

Nov. 24. Some doubt about the micrometer reading, which was written down 10,493 and altered conjecturally to 10,293, being supposed to be the same as the preceding reading for Iris.

Nov. 26. The other object was supposed to be the Planet. See the Note to the Circle observation.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF ASTRÆA.

Apr. 19. 12. 52. 55,3	7	14. 43. 22,62	28,44	+ 5,82	5,15	96. 42. 14,58	39,89	+ 25,31
22. 12. 38. 33,4	1	14. 40. 48,05	53,50	+ 5,45				
25. 12. 24. 6,8	3	14. 38. 8,75	14,62	+ 5,87	5,12	96. 10. 28,73	58,18	+ 29,45
28. 12. 9. 39,1	3	14. 35. 28,30	33,70	+ 5,40	5,09	95. 55. 40,69	67,08	+ 26,39
May 1. 11. 55. 10,6	6	14. 32. 47,10	52,82	+ 5,72	5,05	95. 41. 48,35	70,27	+ 21,92
8. 11. 21. 36,3	4	14. 26. 43,20	48,43	+ 5,23	4,94	95. 13. 30,75	56,16	+ 25,41
9. 11. 16. 50,6	5	14. 25. 53,21	58,59	+ 5,38	4,93	95. 10. 6,02	27,85	+ 21,83
14. 10. 53. 14,7	5	14. 21. 56,30	61,88	+ 5,58	4,83	94. 55. 4,19	27,11	+ 22,92
19. 10. 30. 2,9	5	14. 18. 23,38	29,14	+ 5,76	4,72	94. 44. 16,01	37,59	+ 21,58
21. 10. 20. 54,8	5	14. 17. 6,93	12,25	+ 5,32	4,67	94. 40. 59,70	84,41	+ 24,71
22. 10. 16. 22,7	2	14. 16. 30,67	35,61	+ 4,94				
23. 10. 11. 51,3	3	14. 15. 55,06	60,28	+ 5,22	4,62	94. 38. 10,22	56,70	(+ 46,48)

May 23. The Circle observation appears to be discordant, owing probably to the excessive faintness of the Planet.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF IRENE.

Greenwich Mean Solar Time of Transit.	Number of wires.	R. A. from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Parallax.	Geocentric N.P.D. from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d. h. m. s.		h. m. s.	s.	s.	"	° ' "	"	"
May 21. 12. 5. 42,8	7	16. 2. 12,16	12,02	-0,14	5,91	103. 26. 23,69	23,25	-0,44
22. 12. 0. 47,2	7	16. 1. 12,30	11,94	-0,36	5,91	103. 27. 57,24	60,37	+3,13
26. 11. 41. 4,8	7	15. 57. 12,86	12,83	-0,03	5,88	103. 35. 9,58	7,68	-1,90
28. 11. 31. 15,9	5	15. 55. 15,46	15,13	-0,33	5,86	103. 39. 9,90	5,72	-4,18
31. 11. 16. 36,0	7	15. 52. 22,85	22,67	-0,18	5,82	103. 45. 34,13	34,68	+0,55
June 2. 11. 6. 53,0	7	15. 50. 31,32	31,32	0,00	5,79	103. 50. 19,84	15,76	-4,09
4. 10. 57. 13,7	3	15. 48. 43,64	43,53	-0,11	5,76	103. 55. 17,33	14,72	-2,61
16. 10. 0. 57,4	7	15. 39. 36,75	36,53	-0,22	5,49	104. 31. 26,02	27,99	+1,97
17. 9. 56. 25,0	7	15. 39. 0,13	0,09	-0,04	5,47	104. 34. 55,18	58,17	+2,99
19. 9. 47. 25,8	7	15. 37. 52,60	51,90	-0,70	5,41	104. 42. 9,75	11,68	+1,93
21. 9. 38. 32,3	7	15. 36. 50,75	50,18	-0,57	5,36	104. 49. 42,05	42,48	+0,43

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF EUNOMIA.

Aug. 19. 8. 17. 2,8	4	18. 7. 44,66	44,28	-0,38	4,39	114. 32. 25,83	23,06	-2,77
20. 8. 13. 2,1	5	18. 7. 39,87	40,21	+0,34	4,37	114. 28. 0,77	12,63	(+11,86)
21. 8. 9. 3,8					4,35	114. 24. 1,64	3,91	+2,27
22. 8. 5. 7,9	7	18. 7. 37,50	37,46	-0,04	4,33	114. 19. 57,24	56,98	-0,26

Aug. 20. See the Note to the Circle observation.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF HYGEIA.

Sept. 12. 12. 55. 16,5					2,49	82. 5. 12,27	21,81	+9,54
13. 12. 50. 41,6	7	0. 20. 42,25	40,81	-1,44	2,50	82. 8. 39,56	55,24	+15,68
19. 12. 22. 54,1					2,53	82. 31. 41,38	69,43	(+28,05)
Oct. 2. 11. 22. 21,5					2,57	83. 30. 8,69	20,23	+11,54
4. 11. 13. 4,7	7	0. 5. 36,95	35,93	-1,02	2,57	83. 39. 37,94	46,33	+8,39
7. 10. 59. 12,0	1	0. 3. 31,63	31,02	-0,61	2,57	83. 53. 48,70	56,83	+8,13
8. 10. 54. 36,2	2	0. 2. 51,63	50,29	-1,34	2,57	83. 58. 31,92	39,83	+7,91
10. 10. 45. 24,5	7	0. 1. 31,48	30,43	-1,05	2,57	84. 7. 56,78	62,83	+6,05
14. 10. 27. 8,9					2,56	84. 26. 22,55	31,02	+8,47
24. 9. 42. 23,9	2	23. 53. 32,32	31,44	-0,88	2,52	85. 9. 16,19	23,92	+7,73
Nov. 1. 9. 7. 45,5	5	23. 50. 20,63	19,76	-0,87	2,47	85. 38. 12,28	18,52	+6,24
3. 8. 59. 17,1	5	23. 49. 43,95	42,73	-1,22	2,45	85. 44. 17,70	34,89	(+17,19)

Sept. 19. Circumstances unfavorable: perhaps an error of 1" in the micrometer reading.

Oct. 7 and 8. See the Notes to the Transits.

Nov. 1. The Circle observation was supposed not to apply to the Planet and was consequently rejected. See the Addenda to the Introduction.

Nov. 3. The Circle observation was considered doubtful.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF NEPTUNE.

Greenwich Mean Solar Time of Transit.	Number of wires.	R.A. from Observation.	Seconds of Tabular R.A.	Excess of Tabular R.A.	Parallax.	Geocentric N.P.D. from Observation.	Seconds of Tabular N.P.D.	Excess of Tabular N.P.D.
d. h. m. s.		h. m. s.	s.	s.	"	° ' "	"	"
Aug. 14. 13. 9. 20,8	7	22. 41. 7,90	8,05	+ 0,15	0,26	99. 15. 1,95	1,24	- 0,71
18. 12. 53. 13,8	6	22. 40. 44,45	44,51	+ 0,06	0,26	99. 17. 27,28	26,79	- 0,49
19. 12. 49. 11,9	6	22. 40. 38,45	38,54	+ 0,09	0,26	99. 18. 5,02	3,58	- 1,44
21. 12. 41. 8,0	5	22. 40. 26,35	26,51	+ 0,16	0,26	99. 19. 19,51	17,53	- 1,98
23. 12. 33. 4,1	5	22. 40. 14,28	14,38	+ 0,10	0,26	99. 20. 33,80	31,90	- 1,90
26. 12. 20. 57,9	7	22. 39. 55,76	56,03	+ 0,27	0,26	99. 22. 25,24	23,99	- 1,25
28. 12. 12. 54,2	7	22. 39. 43,79	43,73	- 0,06	0,26	99. 23. 41,26	38,91	- 2,35
30. 12. 4. 49,9	7	22. 39. 31,31	31,40	+ 0,09	0,26	99. 24. 57,31	53,86	- 3,45
Sept. 3. 11. 48. 41,7	7	22. 39. 6,65	6,71	+ 0,06	0,26	99. 27. 24,75	23,41	- 1,34
8. 11. 28. 31,4					0,26	99. 30. 28,36	26,90	- 1,46
9. 11. 24. 29,5	7	22. 38. 29,80	29,92	+ 0,12	0,26	99. 31. 6,69	5,08	- 1,61
10. 11. 20. 27,7	7	22. 38. 23,88	23,84	- 0,04	0,26	99. 31. 44,02	41,51	- 2,51
11. 11. 16. 25,7	7	22. 38. 17,80	17,79	- 0,01	0,26	99. 32. 16,99	17,77	+ 0,78
12. 11. 12. 23,7	7	22. 38. 11,71	11,76	+ 0,05	0,26	99. 32. 54,30	53,84	- 0,46
13. 11. 8. 22,0	7	22. 38. 5,81	5,76	- 0,05	0,26	99. 33. 31,62	29,72	- 1,90
15. 11. 0. 18,3	7	22. 37. 53,91	53,84	- 0,07	0,26	99. 34. 42,62	40,82	- 1,80
19. 10. 44. 11,3	7	22. 37. 30,49	30,44	- 0,05	0,26	99. 37. 1,09	0,12	- 0,97
20. 10. 40. 9,5	7	22. 37. 24,59	24,69	+ 0,10	0,26	99. 37. 37,40	34,28	- 3,12
22. 10. 32. 6,4	7	22. 37. 13,32	13,33	+ 0,01	0,26	99. 38. 44,43	41,64	- 2,79
Oct. 2. 9. 51. 54,7	3	22. 36. 20,53	19,90	(- 0,63)				
3. 9. 47. 53,2	7	22. 36. 14,88	14,92	+ 0,04	0,26	99. 44. 27,03	25,22	- 1,81
4. 9. 43. 52,4					0,26	99. 44. 55,57	53,85	- 1,72
7. 9. 31. 50,4	4	22. 35. 55,69	55,76	+ 0,07	0,26	99. 46. 17,13	16,77	- 0,36
8. 9. 27. 50,0	7	22. 35. 51,11	51,17	+ 0,06	0,26	99. 46. 45,05	43,40	- 1,65
10. 9. 19. 49,3	7	22. 35. 42,26	42,24	- 0,02	0,26	99. 47. 37,85	35,07	- 2,78
11. 9. 15. 49,1	7	22. 35. 37,94	37,90	- 0,04	0,26	99. 48. 1,87	0,11	- 1,76
14. 9. 3. 49,0	7	22. 35. 25,47	25,41	- 0,06	0,26	99. 49. 13,82	11,85	- 1,97
17. 8. 51. 49,6	7	22. 35. 13,83	13,75	- 0,08	0,26	99. 50. 19,82	18,39	- 1,43
24. 8. 23. 54,8	4	22. 34. 50,30	50,08	- 0,22				
Nov. 1. 7. 52. 6,9	7	22. 34. 29,63	29,61	- 0,02	0,26	99. 54. 26,99	24,69	- 2,30
3. 7. 44. 11,2	7	22. 34. 25,73	25,66	- 0,07	0,26	99. 54. 46,17	45,82	- 0,35
4. 7. 40. 13,4	7	22. 34. 23,84	23,87	+ 0,03	0,26	99. 54. 51,62	55,31	(+ 3,69)
14. 7. 0. 42,4					0,25	99. 55. 54,66	49,76	- 4,90
15. 6. 56. 47,0	7	22. 34. 12,36	12,23	- 0,13	0,25	99. 55. 53,20	51,09	- 2,11
18. 6. 44. 58,5	7	22. 34. 11,62	11,70	+ 0,08	0,25	99. 55. 53,03	50,50	- 2,53
20. 6. 37. 7,0	7	22. 34. 11,95	12,00	+ 0,05	0,25	99. 55. 49,31	46,28	- 3,03
22. 6. 29. 16,1					0,25	99. 55. 41,26	38,73	- 2,53
24. 6. 21. 25,7	5	22. 34. 14,25	14,14	- 0,11	0,25	99. 55. 28,15	28,60	+ 0,45
25. 6. 17. 30,5	7	22. 34. 15,04	15,00	- 0,04	0,25	99. 55. 23,80	22,25	- 1,55
Dec. 8. 5. 26. 46,7	4	22. 34. 38,08	38,00	- 0,08	0,25	99. 52. 53,98	50,49	- 3,49
11. 5. 15. 7,2	7	22. 34. 46,37	46,36	- 0,01	0,25	99. 51. 58,74	57,56	- 1,18
17. 4. 51. 51,8	3	22. 35. 6,44	6,41	- 0,03	0,25	99. 49. 50,47	52,23	+ 1,76
19. 4. 44. 7,3	3	22. 35. 13,78	14,06	+ 0,28				

Oct. 2. At three wires under bad circumstances.

Nov. 4. See the Note to the Circle observation.

Dec. 19. The Planet was at this time observed with difficulty.

DETERMINATION OF THE POSITION OF THE ECLIPTIC, AND OF THE MEAN ERROR OF
THE ASSUMED RIGHT ASCENSIONS OF THE FUNDAMENTAL STARS, FROM THE
TRANSIT AND CIRCLE OBSERVATIONS OF THE SUN IN THE YEAR 1851.

The total number of Circle Observations of the Sun, in which both Limbs were observed, was 118, those of April 17 and Sept. 17 being excluded; and the number of observations of single Limbs, exclusive of those of March 11 and Aug. 6, was 14. The observations of single Limbs are taken into account, half-weight being given to each. The whole are divided into four groups containing $31\frac{1}{2}$, 30, $31\frac{1}{2}$ and 30 observations. Each of these is subdivided into three groups, as exhibited in the subjoined Table. This Table contains also the limiting days and the mean day of each group, the mean value (α) of the Tabular Errors in North Polar Distance, derived from the columns in pages 405—407, and the Sun's Longitude (λ) and North Polar Distance (Δ) at the mean noon of the mean day.

Limiting Days of Observation of each group.	Mean Day.	Mean of the Tabular Errors in N.P.D.	Number of Observations.	Sun's Longitude at mean Noon of mean Day.	Sun's N.P.D. at mean Noon of mean Day.
		"		° ' "	° ' "
Jan. 4.....Jan. 28	Jan. 18	-0,17	$10\frac{1}{2}$	297.52. 5	110.36.13
Jan. 30.....Feb. 18	Feb. 10	+0,44	11	321.12.46	104.26.23
Feb. 20.....Mar. 21	Mar. 3	+0,86	10	342.21. 4	96.55.55
Mar.28.....May 7	Apr. 18	+0,33	$10\frac{1}{2}$	27.50.38	79.17. 6
May 8.....June 9	May 23	+0,19	$10\frac{1}{2}$	61.42.51	69.28.48
June 11.....June 27	June 20	-0,83	10	88.30. 3	66.33. 5
June 28.....July 29	July 14	-2,06	11	111.23. 8	68.14.37
Aug. 2.....Aug. 25	Aug. 14	-1,92	$10\frac{1}{2}$	141. 2.48	75.30.26
Aug. 29.....Sept. 23	Sept. 12	-1,61	10	169. 5.44	85.40.53
Oct. 6.....Nov. 3	Oct. 19	-1,81	$10\frac{1}{2}$	205.30.47	99.52.21
Nov. 5.....Nov. 19	Nov. 12	-1,41	$10\frac{1}{2}$	229.32.23	107.37.50
Nov. 20.....Dec. 23	Dec. 3	-0,42	10	250.46.50	112. 4.45

Formula of Calculation.

$$\alpha + m \operatorname{cosec} \lambda \operatorname{cosec} \Delta + n \sin \lambda \operatorname{cosec} \Delta + p = 0.$$

The following equations were formed according to this formula by means of the data in the Table above, each equation being multiplied by the respective number of observations.

$$\begin{aligned}
 \text{First Quarter} & \begin{cases} \text{Jan. 18.....} - 1,78 + m \times 5,2435 - n \times 9,9166 + 10,5p = 0. \\ \text{Feb. 10.....} + 4,84 + m \times 8,8539 - n \times 7,1155 + 11p = 0. \\ \text{Mar. 3.....} + 8,60 + m \times 9,5995 - n \times 3,0542 + 10p = 0. \end{cases} \\
 \text{Second Quarter} & \begin{cases} \text{Apr. 18.....} + 3,47 + m \times 9,4491 + n \times 4,9912 + 10,5p = 0. \\ \text{May 23.....} + 2,00 + m \times 5,3127 + n \times 9,8727 + 10,5p = 0. \\ \text{June 20.....} - 8,30 + m \times 0,2852 + n \times 10,8964 + 10p = 0. \end{cases} \\
 \text{Third Quarter} & \begin{cases} \text{July 14.....} - 22,66 - m \times 4,3187 + n \times 11,0282 + 11p = 0. \\ \text{Aug. 14.....} - 20,16 - m \times 8,4338 + n \times 6,8182 + 10,5p = 0. \\ \text{Sept. 12.....} - 16,10 - m \times 9,8474 + n \times 1,8971 + 10p = 0. \end{cases} \\
 \text{Fourth Quarter} & \begin{cases} \text{Oct. 19.....} - 19,01 - m \times 9,6185 - n \times 4,5905 + 10,5p = 0. \\ \text{Nov. 12.....} - 14,81 - m \times 7,1495 - n \times 8,3827 + 10,5p = 0. \\ \text{Dec. 3.....} - 4,20 - m \times 3,5524 - n \times 10,1899 + 10p = 0. \end{cases}
 \end{aligned}$$

New equations were formed from the above by adding and subtracting as here indicated :

$$\text{First Quarter} + \text{Second} + \text{Third} + \text{Fourth.....} - 88'',11 - m \times 4,1764 + n \times 2,2544 + 125p = 0.$$

$$\text{First Quarter} + \text{Second} - \text{Third} - \text{Fourth.....} + 105'',77 + m \times 81,6642 + n \times 9,0936 = 0.$$

$$\text{First Quarter} - \text{Second} - \text{Third} + \text{Fourth.....} + 35'',39 + m \times 10,9294 - n \times 88,7532 = 0.$$

The solution of these equations gives,

$$m = -1'',321,$$

$$n = +0'',236,$$

$$p = 0'',656.$$

Let $\delta\lambda$ = the mean excess for the year of the Tabular Longitude of the Sun above the true Longitude.

δR = the mean excess for the year of the Tabular R.A. of the Sun above the true R.A.

$\delta\Delta$ = the mean excess for the year of the Tabular N.P.D. of the Sun above the true N.P.D.

δI = the mean excess of the Obliquity (I) assumed in the Tables above the true Obliquity.

$A = -0^s,146$, which is the mean of 133 apparent excesses of the Tabular R.A. in pages 405—407, those of Sept. 17 and Oct. 22 being excluded, and half-weight being given to the results of observations of single limbs.

$D = -0'',705$, which is the mean of the 132 apparent excesses of Tabular N.P.D. used in forming the foregoing equations, half-weight being given to observations of single limbs.

q = the mean excess of the assumed R.A. of the fundamental stars above the true R.A.

p = the mean excess within the Tropics of the N.P.D. determined by the Circle observations and calculations of 1851 above the true N.P.D.

Then, $\delta\lambda = m \operatorname{cosec} I = -1'',321 \times \operatorname{cosec} 23^\circ.27',5 = -3'',319$.

$$\delta R = \frac{\delta\lambda}{15} \times \frac{\Sigma \cos I \operatorname{cosec}^2 \Delta}{2\pi} = \frac{\delta\lambda}{15} \text{ nearly} = -0^s,221.$$

$$\delta\Delta = (\text{Tabular N.P.D.} - \text{Observed N.P.D.}) + (\text{Observed N.P.D.} - \text{True N.P.D.})$$

$$= D + p = -0'',705 + 0'',656 = -0'',049.$$

$$\delta I = n \sec I = +0'',236 \times \sec 23^\circ.27',5 = +0'',257.$$

$$q = (\text{Tabular R.A.} - \text{True R.A.}) - (\text{Tabular R.A.} - \text{Observed R.A.})$$

$$= \delta R - A = -0^s,221 + 0^s,146 = -0^s,075.$$

Hence the assumed R.A. of the fundamental stars are too small by the mean quantity $0^s,075$.

OCCULTATIONS
OF
FIXED STARS BY THE MOON,
WITH
THE EQUATIONS GIVEN BY THE CALCULATION
OF THE OCCULTATIONS.

1851.

COMPARISONS OF CHRONOMETERS WITH THE TRANSIT CLOCK, USED IN THE
CALCULATION OF THE FOLLOWING OCCULTATIONS.

* * THE letter *H* is an abbreviation for Hardy, the Transit Clock. *U* and *X* are Sidereal Chronometers, each beating half-seconds.

Day of Comparison.	Clock.	Clock Time.	Chron.	Chronometer Time.	Day of Comparison.	Clock.	Clock Time.	Chron.	Chronometer Time.
1851.		<i>h. m. s.</i>		<i>h. m. s.</i>	1851.		<i>h. m. s.</i>		<i>h. m. s.</i>
Jan. 15	H.	1.26.46,0	X.	1.27.24,7	Sept. 14	H.	22.56.31,0	U.	22.56.51,2
15	H.	1.23.8,0	U.	1.24.10,4	14	H.	22.56.50,0	U.	22.57.10,1
Feb. 21	H.	11.25.12,0	U.	11.26.13,0	Oct. 2	H.	20.3.20,0	X.	20.5.20,8
Mar. 13	H.	12.36.49,0	U.	12.36.22,0	2	H.	20.3.55,0	X.	20.5.55,9
Apr. 6	H.	9.13.18,0	X.	9.13.38,5	11	H.	20.41.32,0	X.	20.43.28,3
6	H.	9.8.42,0	U.	9.11.20,4	11	H.	20.42.11,0	X.	20.44.7,2
6	H.	10.21.40,0	X.	10.22.0,5	11	H.	20.38.37,0	U.	20.40.40,0
6	H.	10.12.43,0	U.	10.15.21,8	11	H.	21.26.24,0	X.	21.28.20,5
7	H.	9.15.32,0	X.	9.15.52,5	11	H.	21.30.32,0	U.	21.32.35,0
7	H.	9.10.26,0	U.	9.13.6,1	13	H.	7.30.26,0	X.	7.32.34,0
7	H.	9.10.40,0	U.	9.13.20,0	Nov. 3	H.	1.5.40,0	X.	1.7.30,0
May 4	H.	13.40.1,0	X.	13.40.3,8	10	H.	3.53.12,0	X.	3.55.8,0
July 21	H.	20.40.48,0	X.	20.42.28,5	Dec. 10	H.	5.52.11,0	X.	5.53.50,0
Sept. 14	H.	22.53.40,0	X.	22.54.59,5	10	H.	7.4.16,0	X.	7.5.54,8

Day of Observation 1851.	Phænomenon.	Moon's Limb.	Chronom.	Instrument.	Time by Chronometer.	Sidereal Time.	Greenwich Mean Solar Time.	Observer.
					<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>	
Jan. 15	(a) Disappearance of χ^3 Orionis	Dark	X.	Northumb. Equat.	1.18.35,8	1.18.57,03	5.40.16,77	B.
			U.	5-feet Equatorial	1.18.59,5	1.18.57,03	5.40.16,77	T.
Feb. 21	(b) Reappearance of γ Libræ	Dark	U.	5-feet Equatorial	11.21.55,5	11.21.43,96	13.15.56,31	T.
Mar. 13	(c) Disappearance of θ Caneri	Dark	X.	Northumb. Equat.	12.32.9,2	12.32.54,36	13.8.16,92	B.
Apr. 6	(d) Disappearance of m Tauri	Dark	X.	Northumb. Equat.	9.7.16,9	9.7.46,21	8.9.20,60	B.
			U.	5-feet Equatorial	9.9.34,9	9.7.46,31	8.9.20,70	T.
...	(e) Reappearance of m Tauri	Bright	X.	Northumb. Equat.	10.10.43,8	10.11.13,18	9.12.37,18	B.
			U.	5-feet Equatorial	10.13.8,0	10.11.19,08		T.
7	(f) Disappearance of χ^4 Orionis	Dark	X.	Northumb. Equat.	9.8.30,7	9.9.1,57	8.6.39,87	B.
			U.	5-feet Equatorial	9.10.49,8	9.9.1,12	8.6.39,42	T.
May 4	(g) Reappearance of χ^5 Orionis	Bright	X.	5-feet Equatorial	13.32.17,0	13.32.41,77	10.43.27,37	B.
July 21	(h) Reappearance of ξ^3 Ceti.	Dark	X.	Northumb. Equat.	20.39.28,3	20.38.14,04	12.41.8,87	B.
			X.	46-inch Dollond	22.52.54,6	22.52.21,61	11.18.39,51	B.
Sept. 14	(f) Reappearance of B.A.C. 845	Dark	U.	5-feet Equatorial	22.51.54,8	22.52.21,16	11.18.39,06	T.
Oct. 2	(i) Reappearance of B.A.C. 6607	Bright	X.	Northumb. Equat.	19.51.30,8	19.50.46,09	7.6.47,41	B.
11	(k) Disappearance of ξ^2 Ceti	Bright	X.	Northumb. Equat.	20.38.18,8	20.37.53,67	7.18.24,13	B.
			U.	5-feet Equatorial	20.38.24,5	20.37.52,62		T.
...	(l) Reappearance of ξ^2 Ceti	Dark	X.	Northumb. Equat.	21.24.32,4	21.24.7,07	8.4.29,95	B.
			U.	5-feet Equatorial	21.24.46,8	21.24.14,97		T.
13	(m) Disappearance of δ^1 Tauri	Bright	X.	46-inch Dollond	7.27.33,0	7.26.58,39	17.57.50,69	B.
Nov. 3	(n) Disappearance of ψ^3 Aquarii	Dark	X.	Northumb. Equat.	1.3.43,6	1.2.59,69	10.12.20,83	B.
10	(o) Reappearance of i Tauri	Dark	X.	46-inch Dollond	3.52.52,0	3.52.12,17	12.33.34,23	B.
Dec. 10	(p) Disappearance of 63 Geminorum	Bright	X.	46-inch Dollond	5.48.26,3	5.47.49,04	12.30.54,84	B.
10	(q) Reappearance of 63 Geminorum	Dark	X.	46-inch Dollond	7.2.14,8	7.1.37,82	13.44.31,53	B.

(a) 'True to the tenth of a second. The wind being high, the counting was checked after the observation. The sky was clear, but the star somewhat ill-defined and dancing.' (B). 'Good I think.' (T). (b) The Moon low and the star very faint from thick cloud: the observation was considered to be accurate to half a second. (c) 'Exact to one-tenth of a second I think. The star was bright and the sky clear.' (d) 'Beautifully exact: the Limb of the Moon could be seen quite round, but I did not observe any projection of the star on the Limb.' (B). Good: the star disappeared instantaneously.' (T). The time recorded by B was 1^m later. (e) 'As exact as the time of disappearance.' (B). 'May be late, as I used a low power.' (T). (f) Both observations considered very exact. (g) 'At the noted time I saw what appeared to be the star on the Moon's Limb, and χ^1 Orionis was well seen north-preceding: but there was so much cloud that I could not be sure. The Moon was low and waving.' The calculation of this observation, which shewed that the noted time was considerably too late, is not added. (h) 'Very good: the Limb was seen all round.' (i) 'Very exact: the Moon's Limb was tremulous.' The seconds were counted by T. (k) 'The Moon's edge was unsteady, but the time was quite exact.' (B). 'Good.' (T). The time of disappearance at a bright Limb is likely to be more exact with the Northumberland Telescope than with that of the 5-feet Equatorial. (l) 'Very good: seen instantly I think.' (B). 'Not seen soon enough, looked for in a wrong place.' (T). (m) 'Clouds sweeping over the Moon, and the star disappearing and reappearing, but occasionally very bright.' (n) Clouds over the Moon and the star faint, but the time was considered exact. (o) 'Hurried observation: the right part of the Moon was looked at and the star was quite bright when first seen. I could not see the star when I first looked.' (p) The Moon steady, but the star very faint at last. The observation was considered good. (q) 'Seen at the instant of reappearance, the right place being looked at. The wind was blowing violently and shook the Telescope.' In this and other observations with the 46-inch Dollond, the tripod stand was placed in front of the Portico Door.

Disappearance of χ^3 Orionis, Jan. 15, $5^h.40^m.16^s.77 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$19.44.15.45 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc.....	$87.48.33.30 + 0.6443 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$69.47.35.42 - 0.0536 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$59.59.36 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter.....	$16.20.80 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$88.39.42.00 + e''$
Star's N.P.D.....	$70.18.51.90 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc.....	$88.25.7.01 + \delta R$
Moon's apparent N.P.D.....	$70.27.31.32 + \delta \lambda$
Moon's apparent Semidiameter	$16.29.09 + \delta S$
Apparent Distance of Star from Moon's centre	$16.14.24 + \delta D$

$$\delta R = +0.5844t + 0.6472\tau + 1.0042x - 0.0039y + 2.2030m + 0.0137v$$

$$\delta \lambda = -0.1025t - 0.0518\tau + 0.0034x + 1.0084y + 2.4198m - 0.0119v$$

$$\delta S = +0.0007t + 0.9891n$$

$$\delta D = -0.7970\delta R + 0.7970e + 0.5338\delta \lambda - 0.5326f.$$

Final Equation :

$$+ 14''.85 = 0.7985x + 0.5414y + 0.7970e - 0.5326f - 0.5211t - 0.5435\tau - 0.0172v - 0.4641m - 0.9891n.$$

Reappearance of γ Libræ, Feb. 21, $13^h.15^m.56^s.31 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$170.25.59.40 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc.....	$231.31.3.00 + 0.5447 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$103.35.35.64 + 0.1515 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$57.14.10 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter.....	$15.35.80 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$231.47.54.60 + e''$
Star's N.P.D.	$104.17.16.90 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc.....	$232.2.51.41 + \delta R$
Moon's apparent N.P.D.	$104.23.23.56 + \delta \lambda$
Moon's apparent Semidiameter.....	$15.37.29 + \delta S$
Apparent Distance of Star from Moon's centre	$15.43.07 + \delta D$

$$\delta R = +0.4720t + 0.5478\tau + 1.0050x + 0.0023y + 1.9181m + 0.0119v$$

$$\delta \lambda = +0.1842t + 0.1505\tau - 0.0022x + 1.0015y + 2.8703m - 0.0084v$$

$$\delta S = +0.0006t + 0.9373n$$

$$\delta D = +0.8926\delta R - 0.8926e + 0.3883\delta \lambda - 0.3893f.$$

Final Equation :

$$-5''.78 = 0.8963x + 0.3909y - 0.8926e - 0.3893f + 0.4922t + 0.5474\tau + 0.0074v + 2.8266m - 0.9373n.$$

Disappearance of θ Cancri, March 13, $13^h.8^m.16^s.92 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$188.13.35.40 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$126.4.8.85 + 0.6401 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$70.44.33.18 + 0.0893 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$60.18.68 \times [9.9990916] \times (1 + 0.001m)$
Moon's Geocentric Semidiameter	$16.26.11 \times (1 + 0.001n)$
Star's Right Ascension in arc	$125.46.32.40 + e''$
Star's N.P.D.	$71.24.26.60 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$

Moon's apparent Right Ascension in arc	$125.29.16.80 + \delta R$
Moon's apparent N.P.D.	$71.24.3.31 + \delta \lambda$
Moon's apparent Semidiameter	$16.35.26 + \delta S$
Apparent Distance of Star from Moon's centre	$16.21.81 + \delta D$

$$\delta R = +0.6646t + 0.6437\tau + 1.0053x + 0.0036y - 2.1032m - 0.0131v$$

$$\delta \lambda = +0.1345t + 0.0881\tau - 0.0031x + 1.0092y + 2.3952m - 0.0123v$$

$$\delta S = -0.0007t + 0.9953n$$

$$\delta D = -0.9475\delta R + 0.9475e - 0.0229\delta \lambda + 0.0245f.$$

Final Equation:

$$+13''.45 = -0.9524x - 0.0265y + 0.9475e + 0.0245f - 0.6322t - 0.6120\tau + 0.0127v + 1.9378m - 0.9953n.$$

Disappearance of m Tauri, April 6, $8^h.9^m.20^s.65 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$136.56.33.90 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$74.55.55.35 + 0.5735 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$70.56.53.37 - 0.0900 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$57.7.95 \times [9.9990916] \times (1 + 0.001m)$
Moon's Geocentric Semidiameter	$15.34.14 \times (1 + 0.001n)$
Star's Right Ascension in arc	$74.39.31.80 + e''$
Star's N.P.D.	$71.33.42.10 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$

Moon's apparent Right Ascension in arc	$74.22.59.22 + \delta R$
Moon's apparent N.P.D.	$71.34.22.27 + \delta \lambda$
Moon's apparent Semidiameter	$15.42.33 + \delta S$
Apparent Distance of Star from Moon's centre	$15.42.51 + \delta D$

$$\delta R = +0.5007t + 0.5761\tau + 1.0050x + 0.0033y - 1.9861m - 0.0123v$$

$$\delta \lambda = -0.0490t - 0.0924\tau - 0.0029x + 1.0087y + 2.2714m - 0.0117v$$

$$\delta S = -0.0006t + 0.9423n$$

$$\delta D = -0.9478\delta R + 0.9478e + 0.0434\delta \lambda - 0.0419f.$$

Final Equation:

$$-0''.18 = -0.9527x + 0.0406y + 0.9478e - 0.0419f - 0.4761t - 0.5500\tau + 0.0112v + 1.9810m - 0.9423n.$$

Reappearance of m Tauri, April 6, $9^h.12^m.37^s.18 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$152.48.17.70 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$75.32.14.85 + 0.5746 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$70.51.15.10 - 0.0882 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$57.9.51 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$15.34.57 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$74.39.31.80 + e''$
Star's N.P.D.	$71.33.42.10 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + \nu$
Moon's apparent Right Ascension in arc	$74.55.55.66 + \delta R$
Moon's apparent N.P.D.	$71.31.30.24 + \delta \lambda$
Moon's apparent Semidiameter	$15.40.49 + \delta S$
Apparent Distance of Star from Moon's centre	$15.42.52 + \delta D$

$$\delta R = +0.5414t + 0.5756\tau + 1.0023x + 0.0037y - 2.1843m - 0.0136\nu$$

$$\delta \lambda = -0.0427t - 0.0906\tau - 0.0032x + 1.0063y + 2.4338m - 0.0106\nu$$

$$\delta S = -0.0007t + 0.9405n$$

$$\delta D = +0.9392\delta R - 0.9392e - 0.1392\delta \lambda + 0.1407f.$$

Final Equation:

$$-2''.03 = -0.9418x - 0.1366y - 0.9392e + 0.1407f + 0.5150t + 0.5533\tau - 0.0113\nu - 2.3902m - 0.9405n.$$

Disappearance of χ^4 Orionis, April 7, $8^h.6^m.39^s.65 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$137.15.20.25 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$88.57.39.30 + 0.5969 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$69.18.43.43 - 0.0453 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$57.44.68 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$15.44.14 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$88.45.55.50 + e''$
Star's N.P.D.	$69.51.55.10 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + \nu$
Moon's apparent Right Ascension in arc	$88.29.9.22 + \delta R$
Moon's apparent N.P.D.	$69.53.18.30 + \delta \lambda$
Moon's apparent Semidiameter	$15.54.65 + \delta S$
Apparent Distance of Star from Moon's centre	$15.48.51 + \delta D$

$$\delta R = +0.4909t + 0.6011\tau + 1.0073x + 0.0032y - 1.7227m - 0.0107\nu$$

$$\delta \lambda = -0.0069t - 0.0475\tau - 0.0027x + 1.0111y + 2.1003m - 0.0128\nu$$

$$\delta S = -0.0005t + 0.9546n$$

$$\delta D = -0.9353\delta R + 0.9353e + 0.0886\delta \lambda - 0.0869f.$$

Final Equation:

$$+6''.14 = -0.9424x + 0.0866y + 0.9353e - 0.0869f - 0.4592t - 0.5665\tau + 0.0089\nu + 1.7973m - 0.9546n.$$

Reappearance of ζ^3 Ceti, July 21, $12^h.41^m.8^s.87 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$309.33.30.60 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$34.40.59.25 + 0.4886 \times (t + \tau) + x$
Moon's Geocentric N.P.D.	$81.39.46.58 - 0.1759 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$55.22.78 \times [9.9990916] \times (1 + 0.001m)$
Moon's Geocentric Semidiameter	$15.5.49 \times (1 + 0.001n)$
Star's Right Ascension in arc.....	$35.3.48.75 + e$
Star's N.P.D.	$82.12.34.30 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc.....	$35.15.15.34 + \delta R$
Moon's apparent N.P.D.....	$82.22.35.68 + \delta \lambda$
Moon's apparent Semidiameter.....	$15.7.80 + \delta S$
Apparent Distance of Star from Moon's centre	$15.8.07 + \delta D$

$$\delta R = +0.4778t + 0.4892\tau + 1.0008x - 0.0015y + 2.0577m + 0.0128v$$

$$\delta \lambda = -0.1954t - 0.1757\tau + 0.0013x + 1.0025y + 2.5769m - 0.0100v$$

$$\delta S = +0.0006t + 0.9078n$$

$$\delta D = +0.7425\delta R - 0.7425e + 0.6624\delta \lambda - 0.6621f.$$

Final Equation :

$$-0''.27 = +0.7439x + 0.6630y - 0.7425e - 0.6621f + 0.2246t + 0.2468\tau + 0.0029v + 3.2349m - 0.9078n.$$

Reappearance of B.A.C. 845, Sept. 14, $11^h.18^m.39^s.28 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$343.5.20.70 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$39.0.45.90 + 0.4846 \times (t + \tau) + x$
Moon's Geocentric N.P.D.	$79.52.46.93 - 0.1682 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$54.48.66 \times [9.9990916] \times (1 + 0.001m)$
Moon's Geocentric Semidiameter	$14.56.20 \times (1 + 0.001n)$
Star's Right Ascension in arc.....	$39.13.55.05 + e$
Star's N.P.D.	$80.30.54.40 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc.....	$39.29.14.25 + \delta R$
Moon's apparent N.P.D.....	$80.32.13.88 + \delta \lambda$
Moon's apparent Semidiameter.....	$15.2.98 + \delta S$
Apparent Distance of Star from Moon's centre	$15.10.14 + \delta D$

$$\delta R = +0.4042t + 0.4875\tau + 1.0055x - 0.0015y + 1.7179m + 0.0107v$$

$$\delta \lambda = -0.1891t - 0.1688\tau + 0.0014x + 1.0075y + 2.3859m - 0.0109v$$

$$\delta S = +0.0005t + 0.9030n$$

$$\delta D = +0.9826\delta R - 0.9826e + 0.0877\delta \lambda - 0.0870f.$$

Final Equation :

$$-7''.16 = +0.9882x + 0.0869y - 0.9826e - 0.0870f + 0.3801t + 0.4642\tau + 0.0095v + 1.8972m - 0.9030n.$$

Reappearance of B.A.C. 6607, Oct. 2, $7^h.6^m.47^s.41 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$297.41.31.35 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$288.18.34.20 + 0.5582 \times (t + \tau) + x$
Moon's Geocentric N.P.D.	$111.49.20.91 - 0.0195 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$55.36.15 \times [9.9990916] \times (1 + 0.001m)$
Moon's Geocentric Semidiameter	$15.9.11 \times (1 + 0.001n)$
Star's Right Ascension in arc.....	$287.55.56.70 + e$
Star's N.P.D.	$112.40.26.80 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$

Moon's apparent Right Ascension in arc.....	$288.12.30.66 + \delta R$
Moon's apparent N.P.D.	$112.42.42.00 + \delta \lambda$
Moon's apparent Semidiameter.....	$15.12.99 + \delta S$
Apparent Distance of Star from Moon's centre	$15.26.93 + \delta D$

$$\delta R = +0.4037t + 0.5642\tau + 1.0107x - 0.0007y - 0.3674m - 0.0023v$$

$$\delta \lambda = -0.0288t - 0.0192\tau + 0.0006x + 1.0042y + 3.2145m - 0.0043v$$

$$\delta S = -0.0001t + 0.9130n$$

$$\delta D = +0.9127\delta R - 0.9127e + 0.1449\delta \lambda - 0.1468f.$$

Final Equation :

$$-13''.94 = +0.9226x + 0.1449y - 0.9127e - 0.1468f + 0.3644t + 0.5122\tau - 0.0027v + 0.1306m - 0.9130n.$$

Disappearance of ξ^2 Ceti, Oct. 11, $7^h.18^m.24^s.13 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$309.28.25.05 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$34.16.12.75 + 0.4800 \times (t + \tau) + x$
Moon's Geocentric N.P.D.	$81.25.37.80 - 0.1764 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$54.41.99 \times [9.9990916] \times (1 + 0.001m)$
Moon's Geocentric Semidiameter	$14.54.31 \times (1 + 0.001n)$
Star's Right Ascension in arc.....	$35.4.18.45 + e$
Star's N.P.D.	$82.12.24.80 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$

Moon's apparent Right Ascension in arc.....	$34.50.3.92 + \delta R$
Moon's apparent N.P.D.	$82.7.51.59 + \delta \lambda$
Moon's apparent Semidiameter.....	$14.56.66 + \delta S$
Apparent Distance of Star from Moon's centre	$14.49.56 + \delta D$

$$\delta R = +0.4685t + 0.4806\tau + 1.0008x - 0.0015y + 2.0329m + 0.0126v$$

$$\delta \lambda = -0.1963t - 0.1762\tau + 0.0013x + 1.0026y + 2.5418m - 0.0098v$$

$$\delta S = +0.0006t + 0.8967n$$

$$\delta D = -0.9428\delta R + 0.9428e - 0.3069\delta \lambda + 0.3074f.$$

Final Equation :

$$+7''.10 = -0.9440x - 0.3063y + 0.9428e + 0.3074f - 0.3821t - 0.3991\tau - 0.0089v - 2.6966m - 0.8967n.$$

Reappearance of ξ^2 Ceti, Oct. 11, $8^h.4^m.29^s.95 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$321^{\circ}.1'.46''.05 + 15''.0411 \times t$
Moon's Geocentric Right Ascension in arc	$34.38.21,15 + 0,4805 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$81.17.30,60 - 0,1760 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$54.42,64 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$14.54,49 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$35.4.18,45 + e''$
Star's N.P.D.	$82.12.24,80 + f''$
Geocentric Colatitude of the Observatory	$37.58.20,37 + v''$
Moon's apparent Right Ascension in are.....	$35^{\circ}.11'.2'',65 + \delta R$
Moon's apparent N.P.D.	$81.58.49,58 + \delta \lambda$
Moon's apparent Semidiameter.....	$14.58,54 + \delta S$
Apparent Distance of Star from Moon's centre .	$15.8,22 + \delta D$

$$\delta R = + 0,4415t + 0,4821\tau + 1,0027x - 0,0015y + 1,9669m + 0,0122v$$

$$\delta \lambda = - 0,1959t - 0,1761\tau + 0,0013x + 1,0044y + 2,4914m - 0,0102v$$

$$\delta S = + 0,0006t + 0,8985n$$

$$\delta D = + 0,4366\delta R - 0,4366e - 0,8975\delta \lambda + 0,8977f.$$

Final Equation :

$$-9'',68 = + 0,4366x - 0,9022y - 0,4366e + 0,8977f + 0,3680t + 0,3685\tau + 0,0145v - 1,3773m - 0,8985n.$$

Disappearance of δ^1 Tauri, Oct. 13, $17^h.57^m.50^s.69 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$111^{\circ}.44'.35''.85 + 15''.0411 \times t$
Moon's Geocentric Right Ascension in arc.....	$63.52.18,00 + 0,5336 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$72.24.57,06 - 0,1227 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$55.43,43 \times [9,9990916] \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter.....	$15.11,10 \times (1 + 0,001 n)$
Star's Right Ascension in are.....	$63.35.49,20 + e''$
Star's N.P.D.	$72.48.36,20 + f''$
Geocentric Colatitude of the Observatory	$37.58.20,37 + v''$
Moon's apparent Right Ascension in are.....	$63^{\circ}.25'.29'',73 + \delta R$
Moon's apparent N.P.D.....	$73.0.11,45 + \delta \lambda$
Moon's apparent Semidiameter.....	$15.20,43 + \delta S$
Apparent Distance of Star from Moon's centre .	$15.13,21 + \delta D$

$$\delta R = + 0,4317t + 0,5370\tau + 1,0070x + 0,0025y - 1,6196m - 0,0101v$$

$$\delta \lambda = - 0,0921t - 0,1251\tau - 0,0022x + 1,0102y + 2,1377m - 0,0121v$$

$$\delta S = - 0,0005t + 0,9204n$$

$$\delta D = - 0,6197\delta R + 0,6197e + 0,7616\delta \lambda - 0,7610f.$$

Final Equation :

$$+ 7'',22 = - 0,6257x + 0,7678y + 0,6197e - 0,7610f - 0,3372t - 0,4281\tau - 0,0030v + 2,6318m - 0,9204n.$$

Disappearance of ψ^3 Aquarii, Nov. 3, 10^h.12^m.20^s.83 + $t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$15.44.55.35 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$347.50.24.75 + 0.4692 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$99.42.44.21 - 0.1689 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$54.6.43 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$14.44.67 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$347.48.38.85 + e''$
Star's N.P.D.	$100.25.14.50 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc	$347.34.29.97 + \delta R$
Moon's apparent N.P.D.	$100.29.55.85 + \delta \lambda$
Moon's apparent Semidiameter	$14.50.21 + \delta S$
Apparent Distance of Star from Moon's centre	$14.40.91 + \delta D$

$$\delta R = +0.3423t + 0.4734\tau + 1.0087x - 0.0008y - 0.9631m - 0.0060v$$

$$\delta \lambda = -0.1821t - 0.1696\tau + 0.0008x + 1.0062y + 2.8489m - 0.0076v$$

$$\delta S = -0.0003t + 0.8902n$$

$$\delta D = -0.9319\delta R + 0.9319e + 0.3190\delta \lambda - 0.3197f.$$

Final Equation:

$$+9''.30 = -0.9398x + 0.3218y + 0.9319e - 0.3197f - 0.3768t - 0.4953\tau + 0.0032v + 1.8064m - 0.8902n.$$

Reappearance of i Tauri, Nov. 10, 12^h.33^m.34^s.23 + $t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$58.3.2.55 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$70.48.0.00 + 0.5542 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$70.47.56.89 - 0.1072 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$56.12.47 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$15.18.98 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$70.40.40.80 + e''$
Star's N.P.D.	$71.25.5.20 + f$
Geocentric Colatitude of the Observatory	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc	$70.56.8.93 + \delta R$
Moon's apparent N.P.D.	$71.19.3.26 + \delta \lambda$
Moon's apparent Semidiameter	$15.31.49 + \delta S$
Apparent Distance of Star from Moon's centre	$15.51.05 + \delta D$

$$\delta R = +0.4027t + 0.5600\tau + 1.0105x - 0.0008y + 0.4941m + 0.0031v$$

$$\delta \lambda = -0.1192t - 0.1083\tau + 0.0007x + 1.0136y + 1.8919m - 0.0137v$$

$$\delta S = +0.0001t + 0.9315n$$

$$\delta D = +0.8763\delta R - 0.8763e - 0.3799\delta \lambda + 0.3812f.$$

Final Equation:

$$-19''.56 = +0.8852x - 0.3858y - 0.8763e + 0.3812f + 0.3981t + 0.5319\tau + 0.0079v - 0.2858m - 0.9315n.$$

Disappearance of 63 Geminorum, Dec. 10, 12^h.30^m.54^s.84 + $t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$86.57.15.60 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$109.13.0.15 + 0.6138 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$67.40.58.25 + 0.0228 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$57.58.66 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$15.47.95 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$109.44.13.20 + e''$
Star's N.P.D.	$68.15.26.20 + f$
Geocentric Colatitude of the Observatory.....	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc	$109.27.43.95 + \delta R$
Moon's apparent N.P.D.	$68.11.4.80 + \delta \lambda$
Moon's apparent Semidiameter	$16.1.27 + \delta S$
Apparent Distance of Star from Moon's centre .	$15.55.11 + \delta D$

$$\delta R = +0.4629t + 0.6202\tau + 1.0105x - 0.0018y + 0.8981m + 0.0056v$$

$$\delta \lambda = +0.0016t + 0.0241\tau + 0.0015x + 1.0140y + 1.8326m - 0.0144v$$

$$\delta S = +0.0003t + 0.9613n$$

$$\delta D = -0.8932\delta R + 0.8932e - 0.2728\delta \lambda + 0.2746f.$$

Final Equation :

$$+6''.16 = -0.9029x - 0.2751y + 0.8932e + 0.2746f - 0.4141t - 0.5605\tau - 0.0010v + 1.2976m - 0.9613n.$$

Reappearance of 63 Geminorum, Dec. 10, 13^h.44^m.31^s.53 + $t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$105.24.27.30 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$109.58.11.55 + 0.6140 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$67.42.45.47 + 0.0257 \times (t + \tau) + y$
Moon's Horizontal Parallax at the Observatory	$57.59.98 \times [9.9990916] \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$15.48.32 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$109.44.13.20 + e''$
Star's N.P.D.	$68.15.26.20 + f$
Geocentric Colatitude of the Observatory.....	$37.58.20.37 + v$
Moon's apparent Right Ascension in arc	$110.1.17.30 + \delta R$
Moon's apparent N.P.D.	$68.11.56.16 + \delta \lambda$
Moon's apparent Semidiameter	$16.2.32 + \delta S$
Apparent Distance of Star from Moon's centre .	$16.13.97 + \delta D$

$$\delta R = +0.4512t + 0.6209\tau + 1.0113x - 0.0004y + 0.1878m + 0.0012v$$

$$\delta \lambda = +0.0216t + 0.0263\tau + 0.0003x + 1.0147y + 1.7766m - 0.0148v$$

$$\delta S = +0.0001t + 0.9623n$$

$$\delta D = +0.9068\delta R - 0.9068e - 0.2148\delta \lambda + 0.2166f.$$

Final Equation :

$$-11''.65 = +0.9170x - 0.2183y - 0.9068e + 0.2166f + 0.4046t + 0.5574\tau + 0.0042v - 0.2112m - 0.9623n.$$

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